GPSMAP® 76C

color map navigator

owner's manual

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Preface

Thank you for choosing the Garmin GPSmap 76C handheld navigation system. This Owner's Manual and Reference Guide is comprised of the following sections:

Introduction—provides the Garmin software license agreement, FCC and safety information, the Table of Contents and an overview of the GPSmap 76C functional features.

Getting Started— takes you through installing batteries, using the unit control buttons, making interface connections from the GPSmap 76C to your PC and downloading detailed maps.

GPS Navigation—takes you through the process of navigating with your GPSmap 76C and how to use GPS Navigation to customize the operation of your GPSmap 76C.

GPS Features—provides detailed descriptions of additional GPS enhanced features such as the Calendar, Hunt and Fish, Sun and Moon and Games, Also included in this section are a few non-GPS features such as the Calculator, a non-GPS enhanced game, etc.

Appendices—provides you with additional information about your GPSmap 76C, accessories and an index by subject.

Preface

Contact Garmin

If you should encounter any difficulty while using your GPSmap 76C, or if you have any questions, in the U.S.A. contact Garmin Product Support by phone at 913-397-8200 or 800-800-1020, Monday – Friday, 8 am – 5 pm Central Time; or by e-mail at sales@garmin.com.

In Europe, contact Garmin (Europe) Ltd. at 44/ 1794.519944.

Software License Agreement

Software License Agreement

BY USING THE GPSmap 76C, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Garmin grants you a limited license to use the software embedded in this device (the "Software") in binary executable form in the normal operation of the product. Title, ownership rights and intellectual property rights in and to the Software remain in Garmin.

You acknowledge that the Software is the property of Garmin and is protected under the United States of America copyright laws and international copyright treaties. You further acknowledge that the structure, organization and code of the Software are valuable trade secrets of Garmin and that the Software in source code form remains a valuable trade secret of Garmin. You agree not to decompile, disassemble, modify, reverse assemble, reverse engineer or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America.

FCC Compliance Information

The GPSmap 76C complies with Part 15 of the FCC interference limits for Class B digital devices FOR HOME OR OFFICE USE. These limits are designed to provide more reasonable protection against harmful interference in a residential installation, and are more stringent than "outdoor" requirements.

Operation of this device is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The GPSmap 76C does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could result in permanent damage to the equipment, and void your warranty and your authority to operate this device under Part 15 regulations.

Warnings and Precautions

CAUTION: Use the GPSmap™ 76C at your own risk. To reduce the risk of unsafe operation, carefully review and understand all aspects of this Owner's Manual—and thoroughly practice operation using the Demo Mode prior to actual use. When in actual use, carefully compare indications from the GPSmap™ 76C to all available navigation sources, including the information from other NAVAIDs, visual sightings, charts, etc. For safety, always resolve any discrepancies before continuing navigation.

CAUTION: IT IS THE USER'S RESPONSIBILITY TO USE THIS PRODUCT PRUDENTLY. THIS PRODUCT IS INTENDED TO BE USED ONLY AS A NAVIGATIONAL AID AND MUST NOT BE USED FOR ANY PURPOSE REQUIRING PRECISE MEASUREMENT OF DIRECTION, DISTANCE, LOCATION OR TOPOGRAPHY. THIS PRODUCT SHOULD NOT BE USED AS AN AID TO DETERMINE GROUND PROXIMITY FOR AIRCRAFT NAVIGATION.

CAUTION: The electronic chart is an aid to navigation and is designed to facilitate the use of authorized government charts, not replace them. Only official government charts and notices to mariners contain all information needed for safe navigation – and, as always, the user is responsible for their prudent use.

Warnings and Precautions

MAP DATA INFORMATION: One of the goals of Garmin is to provide customers with the most complete and accurate cartography that is available to us at a reasonable cost. We use a combination of governmental and private data sources, which we identify as required in product literature and copyright messages displayed to the consumer. Virtually all data sources contain inaccurate or incomplete data to some degree. This is particularly true outside the United States, where complete and accurate digital data is either not available or prohibitively expensive.

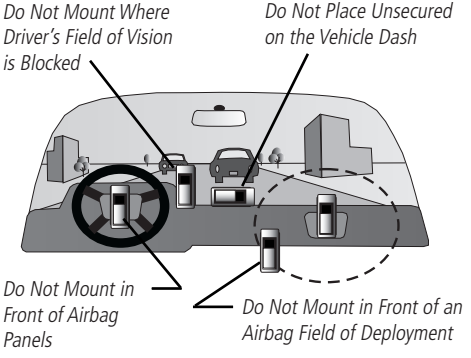
WARNING: The Global Positioning System (GPS) is operated by the United States government, which is solely responsible for its accuracy and maintenance. The system is subject to changes which could affect the accuracy and performance of all GPS equipment. Although the Garmin GPSmap 76C is a precision electronic NAVigation AID (NAVAID), any NAVAID can be misused or misinterpreted and, therefore, become unsafe.

WARNING: This product, its packaging, and its components contain chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. This Notice is being provided in accordance with California's Proposition 65. If you have any questions or would like additional information, please refer to our web site at http://www.garmin.com/prop65.

Warnings and Precautions

Important

Because the Garmin GPSmap 76C can be used for vehicular navigation, important safety considerations must be observed. Please read and observe the instructions on this page.


Do Not Mount Where Driver's Field of Vision is Blocked
Do Not Place Unsecured on the Vehicle Dash
Do Not Mount in Front of Airbag Panels
Do Not Mount in Front of an Airbag Field of Deployment

Safety Warnings and Cautions—Read This First!

WARNING: For use in vehicles, it is the sole responsibility of the owner/operator of a vehicle with the GPSmap 76C installed to place and secure the device so that it will not interfere with the vehicle operating controls and safety devices, obstruct the driver's view of driving conditions, or cause damage or personal injury in the event of an accident.

Do not mount the unit over airbag panels or in the field of airbag deployment. Airbags expand with a rapid force that can propel objects in their path towards the vehicle driver or passengers causing possible injury. Refer to airbag safety precautions contained in the vehicle owner's manual.

Do not mount the unit in a place where the driver or passengers are likely to impact it in a collision. The mounting hardware provided by Garmin is not warranted against collision damage or the consequences thereof.

WARNING: When used in vehicles, it is the sole responsibility of the driver of the vehicle to operate the vehicle in a safe manner, maintain full surveillance of all driving conditions at all times, and not become distracted by the unit to the exclusion of safe driving practices. It is unsafe to operate the controls of the unit while you are driving. Failure by the driver of a vehicle equipped with a GPSmap 76C installed to pay full attention to operation of the vehicle and road conditions while the vehicle is in motion could result in an accident with property damage and personal injury.

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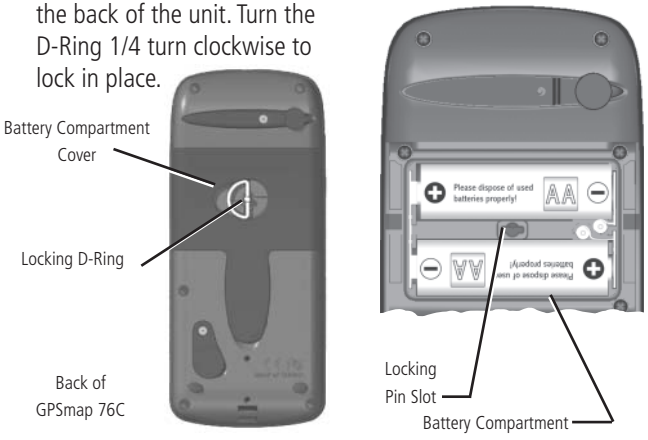
Installing the Batteries

The GPSmap 76C operates on two "AA" batteries (not included), which are located in the back of the unit. Alkaline or NiMH batteries (see page 47 for setting the battery type) may be used. Stored data will not be lost when batteries are removed.

To install batteries:

1. Remove the battery cover from the back of the unit. Turn the D-Ring 1/4 turn counter-clockwise and then pull.
2. Insert the batteries, observing the proper polarity. A polarity diagram can be found moulded into the battery compartment.
3. Reinstall the battery cover by reinserting the locking pin in the back of the unit. Turn the D-Ring 1/4 turn clockwise to lock in place.



Battery Installation and Start Up

Important Note

When replacing batteries, use only new or fully charged batteries. Do not mix Alkaline and NiMH batteries. Rechargeable batteries may typically display less capacity than disposable batteries.

Remove the batteries from the unit if you don't plan to use it for several months. Storing batteries in the unit for prolonged periods may result in leakage and damage to the battery compartment.

Follow the manufacturer's instructions for proper care and disposal of used batteries. Do not incinerate used batteries, as internal materials may ignite with explosive violence.

Extensive use of backlighting and/or WAAS as well as key beep tones will significantly reduce battery life.

To set backlighting intensity and timeout, see page 48.

To disable WAAS, see page 47.

To mute the beep tones, see page 50.

Key Functions

IN/OUT Zoom Keys
- From the Map Page, press to zoom in or out
- From any other page, press to scroll up or down a list

FIND/MOB Key
- Press and release at any time to view the Find Menu Page
- Press and hold for MOB

POWER Key
- Press and Hold to turn unit On/Off
- Press and Release to adjust back-lighting

QUIT Key
- Press and release to cancel data entry or exit a page

ROCKER Key
- Move Up/Down or Right/Left to move through lists, highlight fields, on-screen buttons, icons, enter data or move the map panning arrow

PAGE Key
- Press to cycle through the main pages.
- Press when using the on-screen keyboard to close

MENU Key
- Press and release to view options for a page
- Press twice to view the Main Menu

ENTER/MARK Key
- Press and release to enter highlighted options, data or confirm on-screen messages
- Press and hold to mark your current location as a waypoint

Unit Features

Auxiliary GPS Antenna Connector (under weather cover)

- Provides connection to a remote GPS antenna

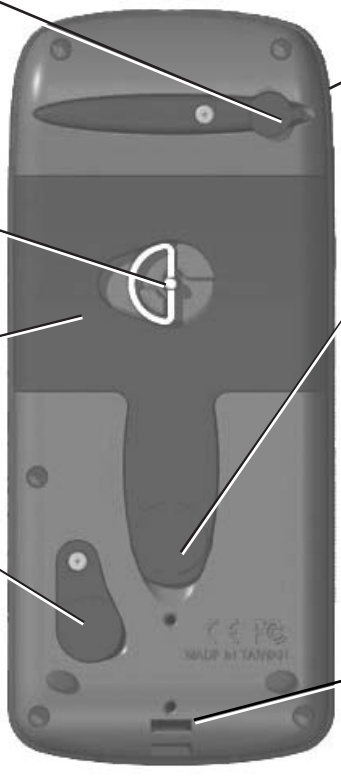
Battery Compartment Locking D-Ring

- Turn 1/4 turn counter-clockwise and lift to remove cover

Battery Compartment Cover

USB Connector Port (under weather cover)

- Provides interface to a PC for faster data transfer



GPS Quad-Helix Antenna (on front of unit)

- Provides quick satellite acquisition

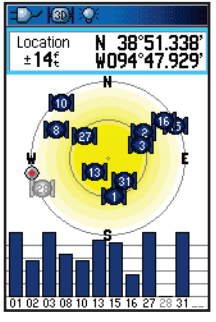
External Power and Data Connector Port (under weather cover)

- Provides interface to a PC for data transfer
- Provides auxiliary AC or DC power adapter connection

Carry Lanyard Attachment Slots

Initialization & the Satellite Page

The GPSmap 76C locates satellites above its position



Satellite Page Acquiring Satellite Signals

Options Menu

Starting Up the GPS Receiver

Whenever you turn on the GPSmap 76C, the GPS receiver begins to search for satellites in order to determine its location which is necessary for navigation. This process is called "initialization" and can take up to 15 minutes the first time you use your unit. Thereafter, if you haven't moved more than 600 miles from your original location, it takes only seconds to minutes. In order to receive satellite signals, you must be outdoors and have a clear view of the sky. Satellite signals cannot pass through solid materials (except glass) or dense overhead tree cover. To shorten the time required for this first initialization, select "New Location" from the options menu, then you can use the Map Page to determine your general location so the GPSmap 76C can search for just those satellites above your position.

To initialize your GPSmap 76C:

1. Press and release the **POWER** key to turn on the unit.
2. Observe the Welcome Page followed by the Satellite Page.
3. While the GPS receiver is searching for the satellite signals, an "Acquiring Satellites" message appears at the top of the page.

You will also observe a sky view array of the satellites overhead with your position centered in the array. The outer circle represents the horizon and the inner circle a position 45° from the horizon. The numbers displayed indicate the number assigned to each satellite. A bar graph displays the strength of signals from each satellite.

4. When the receiver has signals from at least three satellites, the display at the top of the page will change to indicate position accuracy and location coordinates. The Status Bar at the top of the display indicates the GPS status and status of other features.

If, for any reason, you have difficulty initializing your GPSmap 76C, the solution could be as simple as moving slightly to avoid objects that are blocking or deflecting the satellite signals.

5. Press and release the **PAGE** key until the Map Page is displayed. You are now ready to begin GPS aided navigation.

Active Navigation is supported by three of the Main Pages:

The **Map Page** graphically shows you map details, your current location, marks your route to a destination with a route line, and leaves a trail (track log) of where you've been.

The **Compass Page** indicates direction to go and direction of travel.

The **Trip Computer Page** records and displays travel data.

There are three methods of navigating to a destination when using the GPSmap 76C', each graphically displayed on the **Map Page**.

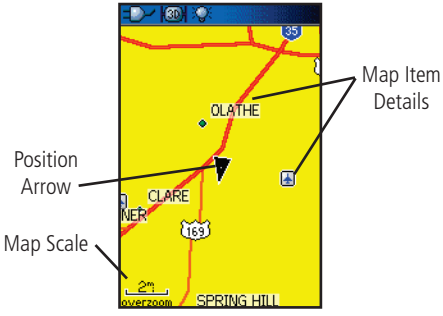
Go To - A direct path to a selected destination (waypoint, city, address, etc.).

Track - A previous path of travel that has been stored (logged) in the GPSmap 76C. A Track allows you to repeat a path or return on the path.

Route - A path to a destination consisting of intermediate stops along the way (waypoints, cities, exits, points of interest, intersections, etc.).

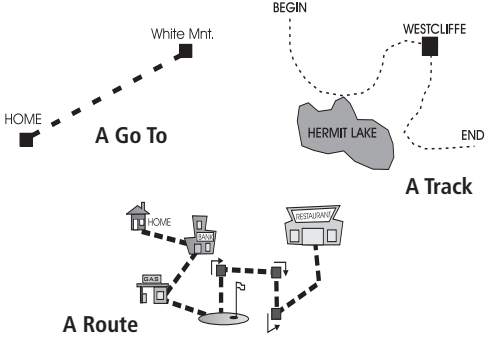
Refer to the sections on Tracks, Routes and Waypoints for details.

Initialization & The Satellite Page



Map Page with Current Position Arrow

Navigating with GPSmap 76C

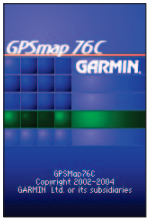


The Main Page Sequence

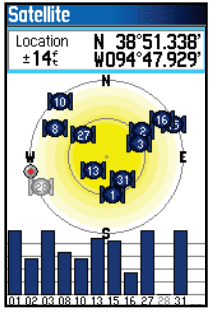
Whenever you turn on the GPSmap 76C, the Power On Page is followed by the Satellite Page, which is the first of the Main Pages in sequence.

To view each Main Page:

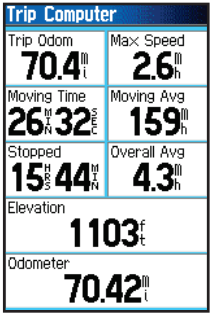
1. Press and release the **PAGE** key, repeatedly, to cycle through the pages.
2. With a Page displayed, press the **MENU** key to display the list of options for that page.



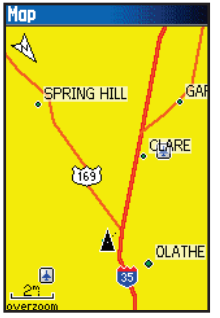
Power On Page



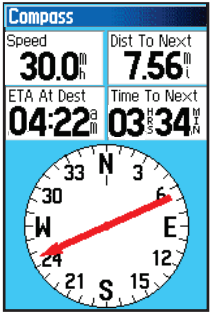
Satellite Page



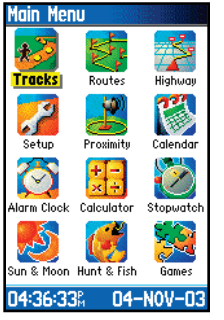
Trip Computer Page



Map Page

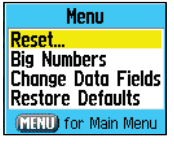


Compass Page

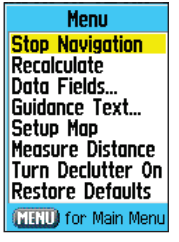


Main Menu

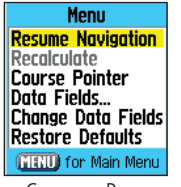
Satellite Page Options



Trip Computer Page Options



Map Page Options



Compass Page Options

There are no Main Menu Options at the Main Page level

Status Bar, Backlighting and On-Screen Messages

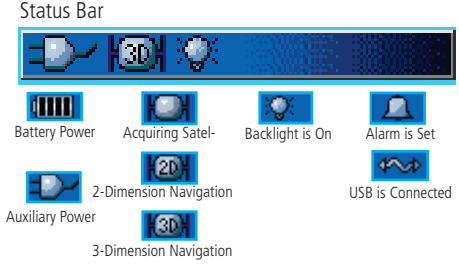
At the top of each page, a Status Bar (which is always displayed) provides current status information for several unit features.

- Power to the unit is provided by either the batteries or from an auxiliary source (AC or DC Adapter). The Battery Power icon displays the remaining power as the battery becomes depleted.
- Satellite signal status is shown when searching for (acquiring) satellites, when a two-dimensional fix is attained and when four or more satellites have been received (three dimensional fix).
- Backlighting is Off when you power up the unit. When On, it uses a significant amount of battery power. This icon displays when the backlight is functioning.
- Alarm Clock: this icon displays whenever the Alarm is set.
- USB cable connection displays when the unit is in communication with a PC Universal Serial Bus.

You may want to adjust the backlight level by pressing down on the **POWER** key and releasing. Then tap the **POWER** key or **ROCKER** key Up/Down arrows to cycle through the levels of backlight adjustment. See page 48 for information on changing the display colors and backlight timeout and brightness levels.

Whenever a significant event in the operation of the unit occurs, an on-screen message will display to advise you of the occurrence. In each case the condition is described and often a remedy provided. Pressing the **ENTER** key will acknowledge and close the message window.

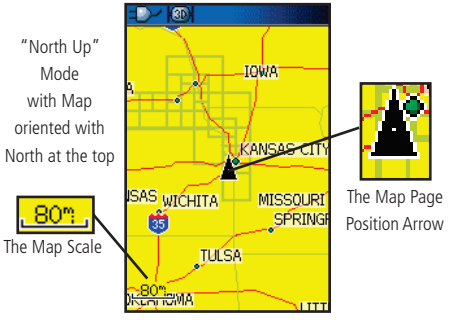
The Main Page Features

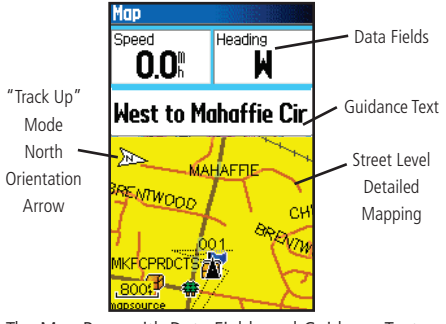


Backlight Adjustment Slider (Brightnesses varies according to battery power level.)

On-Screen Messages

The Map Page





The Map Page with Data Fields and Guidance Text

Using the Map Page

The Map Page is the primary navigation feature of the GPSmap 76C. The Map Page displays a detailed map of the area surrounding your current location. It allows you to pan the map with the **ROCKER** key as well as view your progress when navigating. When in the "Track Up" mode (oriented in the direction of travel), a north reference arrow appears at the top left corner to orient the map. When in the "North Up" mode the map is oriented like a paper map. When you activate the Track Log feature, your path of movement is indicated by a dotted line. The map display can be changed to "Night" mode for easier viewing in dim light. The factory set default automatically changes the display at sunrise and sunset.

The map also displays geographic details such as rivers, lakes, highways, towns and Tide Prediction Stations contained in the basemaps included with the unit. The maps to the left show a higher level of detail than the basemaps provided with the unit (i.e. residential streets, parks, etc.) because Garmin MapSource® detailed mapping data has been downloaded from a CD-ROM program.

You can use the Map Page to:

- Determine your current location and progress while moving
- Select and save a map point as a waypoint.
- Locate and navigate to map items by following a Route displayed on the map.
- Customize the map display to your requirements.

Using Map Page Features

Use the Zoom In and Out buttons to change the map scale in order to show more map area with less detail or less map area with more detail. Press and hold to Zoom the map scale rapidly.

The map scale in the lower left hand side of the display is shown in units of measurement selected in the "Units" field of the Unit Setup Page (not to be confused with the Map Setup Page). If you zoom in so far that the resolution of the map data is exceeded and the appearance of the map is no longer accurate, the word, "overzoom" displays just below the map scale. When using MapSource detailed maps, "mapsource" appears below the scale.

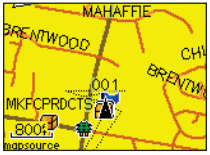
In many instances the map displays an "Accuracy Circle" surrounding the "Position Icon". The GPSmap 76C uses both map resolution and GPS accuracy in defining your location to a point within the circle. The smaller the circle, the more accurate your location.

When using the "Pan Map" feature, a small outline arrow (Panning Arrow) can be moved about the page to highlight and identify map items or to scroll the map to view areas not shown on the display screen. If there are more than one map items under the Panning Arrow. a list of those items displays with the item highlighted on the map, also highlighted on the list.

Optional data fields can be added at the top of the display to provide a variety of travel and navigational information, see pages that follow.

When navigating, Guidance Text will be displayed at the top of the map.

The Map Page



Zoom In

Zoom Out

Map Features

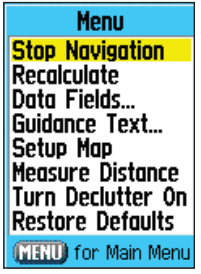
Map Scales

Accuracy Circle

Panning Arrow

Guidance Text

The Map Page



The Map Page Options Menu

A Quick Look at the Map Page Options

Stop Navigation - Stops navigation and is disabled when there is no active navigation.
Recalculate - Recalculates a route and is disabled when there is no active navigation.
Data Fields - Allows two to four fields to display at the top of the page showing Speed, Heading, Elevation and Time.
Guidance Text - Displays messages on the screen to advise you of your next navigation move when navigating to a destination.
Change Data Fields - Allows you to change data field types.
Setup Map - Access to six pages of Map display settings so you can customize the map to your preferences.
Measure Distance - Measures the distance from your current location to the Map Pointer.
Turn Declutter On - Eliminates the display of items on the map which can block out road details when the map is zoomed out.
Restore Defaults - Returns the map display to the factory set map display defaults

The Map Page Options Menu

The Map Page can be changed to display a variety of information for navigation. You can stop navigation to a destination. Arrange up to four data fields to display the type of navigation information you desire. Include a navigation guidance text message on the map page. You can select the type of data fields to display. You can change the way the map displays items by selecting your own settings for text size, what items are displayed and more. You can display the distance from your current location to other locations on the map. You can reduce the amount of map clutter (map item icons and names) to increase the visibility of roads and other geographic features. You can restore the Map Page display to the factory default settings.

To arrange the Map Page:

1. With unit turned On, press and release the **PAGE** key until the Map Page displays.
2. Press the **MENU** key to display the Map Page Options Menu.
3. Use the **ROCKER** key to select the feature you want to use to customize the Map Page and press the **ENTER** key.

Some of these options contain sub-menus that allow you to further control of how the option is used.

The pages that follow discuss each option in detail.

To display Data Fields:

1. With Map Page Options Menu displayed, use the **ROCKER** key to highlight the Data Field option and press **ENTER**.
2. Observe the sub-menu options: "Map Only", "2 Data Fields" "3 Data Fields", and "4 Data Fields".

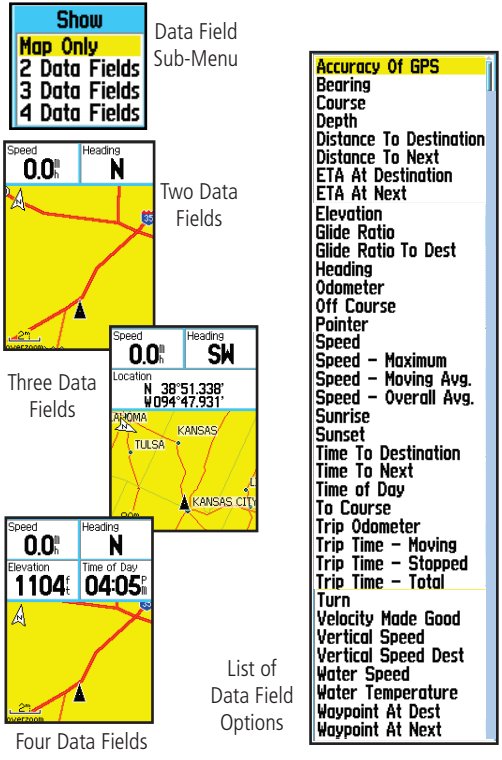
   You can choose to leave the Map Page as is (full page map), or add two, three, or four navigation data fields.
3. Highlight your choice and press **ENTER**.

To change Data Fields:

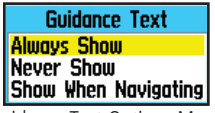
1. Display the data fields, a "Change Data Fields" option appears on the options menu when you press the **MENU** key.
2. Select this option and pressing the **ENTER** key to highlight the first data field.
3. Press **ENTER** again to select from a list of types of navigation data to display in that field.
4. After making your selection and entry, use the **ROCKER** key to move to the next field and repeat the process.

Some Data Field Options are related to the display of data received from other devices interfaced to the GPSmap 76C, for an explanation of what each option represents, see page 72 of the Appendices.

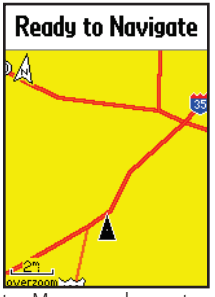
The Map Page



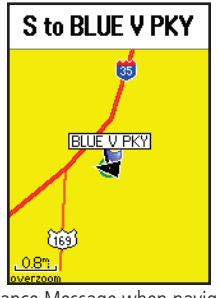
The Map Page



Guidance Text Options Menu



GPS Status Message when not navigating



Guidance Message when navigating

To display Guidance Text:

1. With Map Page displayed, press the **MENU** key to display the Map Page Options Menu.
2. Highlight the Guidance Text Option and press **ENTER** to display the Guidance Text Options Menu.
3. Select the desired option "Always Show", "Never Show", or "Show When Navigating" and press **ENTER** to activate.

If you select "Always Show" a guidance message will always be displayed whether or not you are navigating.

If you select "Show When Navigating" a guidance message will be displayed until you select "Stop Navigation" from the Options Menu.

Guidance Text shows you useful information when using one of the navigation methods described on page 5. If you select "Always Show" and you are not navigating, the message field will display GPS Status information,

To Setup the Map:

1. Refer to the Map Setup section of the Setup Options on page 51.

Measuring Distance

This Map Page option allows you to use the **ROCKER** key to position the Map Pointer on a map item and then determine the distance to that point from your current location. Access the Map Page Options Menu, select "Measure Distance" and press **ENTER** to activate. To measure between two selected points on the Map, move the Map Pointer to the first map point you want to measure from, press **ENTER** and then move the Map Pointer to the second map point. Press **QUIT** to cancel.

Turning Declutter On/Off

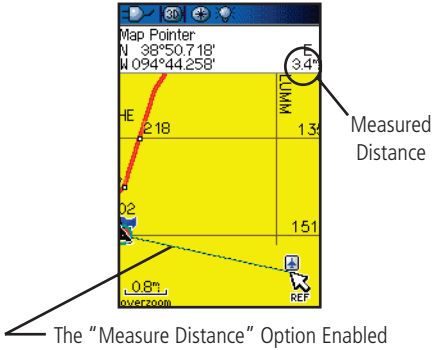
This Map Page option allows you to remove map item titles and icons that clutter the view of roadways especially when the map is zoomed to a scale that is partially obscured by titles and icons which remain the same size no matter what the map scale.

Access the Map Page Options Menu, select "Declutter On" and press **ENTER** to activate. Do the same to cancel the "Declutter" option.

Restoring Default Settings

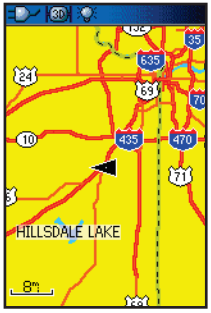
This option allows you to return the map settings to factory settings.

The Map Page



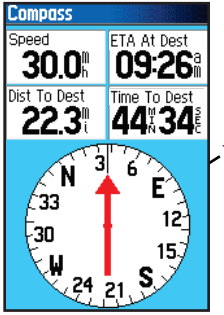
The "Measure Distance" Option Enabled

Map Declutter "Off"



Map Declutter "On"

The Compass Page

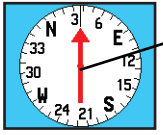


The Compass Ring moves to indicate North orientation when you are moving.

Compass Page

The Course Pointer indicates your course of travel and the distance you drift off course.

Course Pointer



The Bearing Pointer always indicated the direction to your destination.

Bearing Pointer

Using the Compass Page

The Compass Page is your guide to accurate and efficient navigation. It uses traditional navigation displays to provide navigation information.

Whenever navigation is in progress, the Compass Page provides navigation data and directions. It uses a graphic compass display and a bearing pointer along with digital data fields to display information such as current speed, distance to the next point on the route, estimated arrival time, etc. You can choose from three or four data fields and select the type of data displayed in each from a list of options.

When moving, the rotating graphic compass indicates the direction you are heading. The Bearing Pointer indicates the direction (bearing) to your destination, relative to your current heading direction. The compass dial and bearing pointer work independently to show your direction of movement and the direction to your destination. You can choose between a Bearing Pointer or a Course Pointer for guidance.

The compass does not function as a magnetic compass when you are stationary. However when you move, the dial rotates to keep you oriented in relation to North. This is especially helpful when using a paper map in conjunction with your unit for navigation.

To use the Compass Page Options:

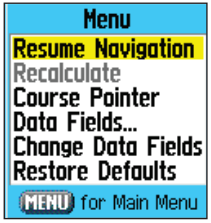
1. Press the **MENU** key to display the Options Menu.
2. The first option is "Stop Navigation" which can be highlighted and activated by pressing **ENTER** to stop navigating.
3. The second option is "Course Pointer" or "Bearing Pointer".

The Bearing Pointer and Compass Ring work independently of the direction of your movement and the direction to your destination. The Bearing Pointer always points directly to the destination, no matter what your current location might be.

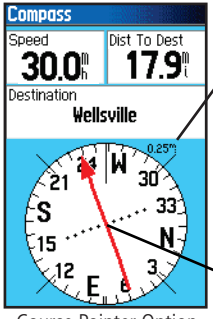
For example: if the arrow is pointing straight up, you are going directly to your destination. If it points any direction other than up, turn towards that direction until the arrow is pointing up and then continue in that direction. If you are using the 'Course Pointer' option instead and you drift away from the line of travel to your destination, the Course Deviation Indicator (CDI) provides graphic indication of drift (right or left) and displays the distance off course.

4. The third option is "Data Fields". Highlight the data fields option and press **ENTER** to display the "Show: 3 Data Fields or 4 Data Fields" options. Highlight your selection and press **ENTER**.
5. The next option is "Change Data Fields" which allows you to determine what data is displayed in the fields. When you select this option, the topic of the first data field on the page will be highlighted. When you press **ENTER**, a list of data options will appear. Refer to page 11 for details on changing data fields.

The Compass Page



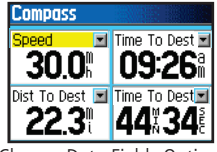
Compass Page Options Menu



Course Deviation Distance *(Use the IN and OUT keys to change the distance scale)*

Course Deviation Indicator (CDI)

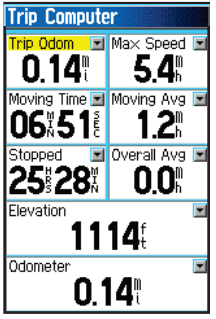
Course Pointer Option

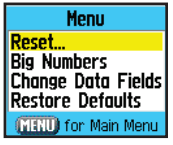


Change Data Fields Option

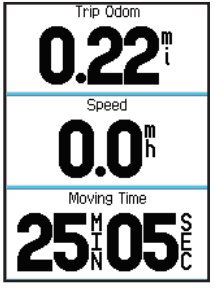
The Trip Computer Page

Select "Change Data Fields" or press the ROCKER key to highlight a field you want to change.





Options Menu



Big Numbers Option

Using the Trip Computer Page

The Trip Computer Page provides you with a wide variety of travel data useful when navigating a long distance. It indicates your current speed, average speed, trip odometer and many other helpful statistics useful for navigation.

You can customize the Trip Computer display to meet your personal requirements, with list of data options to choose from. Selecting the type of data to display is done in the same manner as for the similar data fields on the Map Page. (See page 11 for details.)

Because you want to record new data for each trip, a "Reset" option is available. If you want to view significant trip data at a glance you can use the "Big Numbers" option which shows fewer fields with larger displays.

Before each trip, be certain to reset the trip information by highlighting "Reset" from the options menu and pressing **ENTER**.

The Reset Page offers options for resetting trip computer data, clearing the Track Log and deleting Saved Tracks, Waypoints and Routes. This page allows you select individual items , select all and unselect all. Once your selections are made, highlight the "Apply" button and press **ENTER**. Answer "OK" to the "Data you have selected will be permantly deleted" prompt and press **ENTER** to complete the reset.

Selecting the "Restore Defaults" option will return the page to factory settings.

Reset Page

The Mark Waypoint Page

The Mark Waypoint Page allows you to mark and record your current (or any other) location as a waypoint and appears with name for that waypoint and a waypoint symbol. You can mark your current location from any page on the GPSmap 76C.

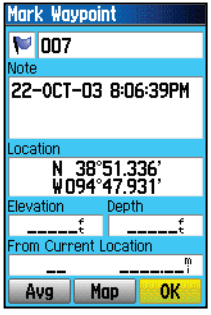
To mark your current location as a waypoint:

1. Press in and hold the **ENTER/MARK** key until the Mark Waypoint Page appears.
2. To change the name of the waypoint, use the **ROCKER** key to highlight the waypoint name field and press **ENTER** to display the on-screen keypad. Use the **ROCKER** key and **ENTER** key to select a name for the waypoint. If you choose a name that has already been used, a "Waypoint Already Exits" message will appear. Press **ENTER** to acknowledge and choose a new name.
3. To assign an identifying symbol to a waypoint, use the **ROCKER** key to highlight the symbol block next to the waypoint name and press **ENTER** to display the Symbols Chart.
4. To save the waypoint to the Find Menu Waypoints List, highlight "OK" and press **ENTER**.
5. If you do not want to save it as a new waypoint, press the **QUIT** button before pressing any other to cancel.

Using Waypoints

MARK

Press the ENTER/MARK key to display the Mark Waypoint Page

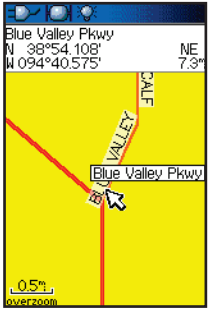


Mark Waypoint Page

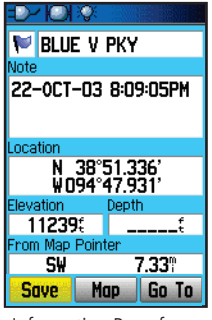
Symbols Chart

Naming a Waypoint

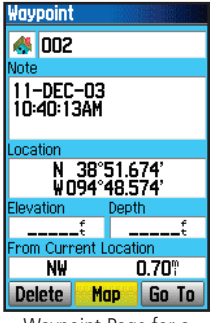
Using Waypoints



Map Item selected as a Waypoint



Information Page for a Map Point with Data



Waypoint Page for a Map Point without Data

To create a waypoint using the map panning arrow:

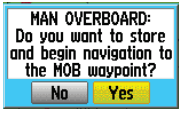
1. With the Map Page displayed, move the panning arrow (map pointer) to the map item you want use as a waypoint. If there is information in the mapping database for that location it will highlight momentarily and display a name or address.
2. Press **ENTER** to display the item information page. With the Information Page displayed, highlight the "Save" button at the bottom of the page and then press **ENTER** to save it to the Find Menu Waypoints List.

   If the map selected does not contain any information, a message will appear, stating "No map information at this point. Do you want to create a user waypoint here?". Select "Yes" and press **ENTER** to display a new waypoint page.

Another method for creating a waypoint is the Man Overboard (MOB) feature. Typically an application for marking a location on water where you cannot stop quickly and must return to a point where there are no land marks for reference.

To create a waypoint using the MOB feature:

1. Press and hold the **FIND** key to display the MOB prompt.
2. Select "Yes" and press **ENTER** to display the Map Page showing the path from your current location to the MOB point. Use the Compass Page for additional guidance to the MOB point.



MOB Prompt

A waypoint location can be averaged over time for more accuracy, but only while the GPS has a fix on the location and before saving it.

To average a Waypoint Location using measurements over time:

1. With the "New Waypoint" information page displayed, press the **MENU** key to display the page options menu.
3. Select "Average Location" and press **ENTER** to display the Average location Page. It will begin to average automatically.
4. Highlight the "Save" button and press **ENTER** when desired.

Editing a Waypoint

A waypoint can be selected from the Find Feature Waypoints list and edited to change the map symbol, name, location coordinates, elevation, or to delete it. Refer to page 21 for details on using the Find Feature.

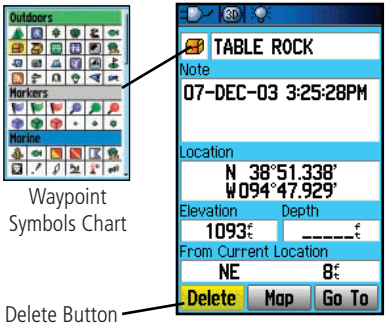
To edit a Waypoint:

1. Use the Find Feature to display the desired waypoint information page.
2. Make changes as required by highlighting each field and use the waypoint symbol chart, and alpha/numeric keypad to enter new data.
3. Press the **QUIT** key to close and save the changes.

To delete a Waypoint:

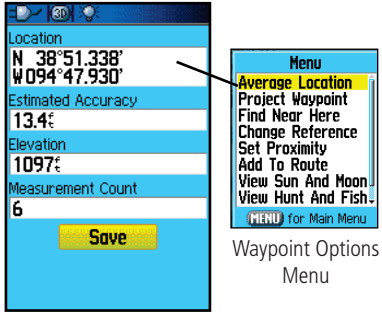
1. Use the Find Feature to display the desired waypoint information page.
2. Highlight the "Delete" button at the bottom of the page and press **ENTER**. Answer "Yes" to the pop-up prompt and press **ENTER** to delete.

Using Waypoints



Waypoint Symbols Chart

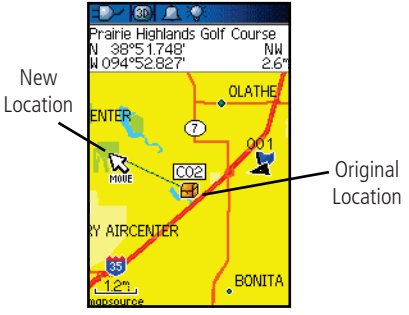
Delete Button



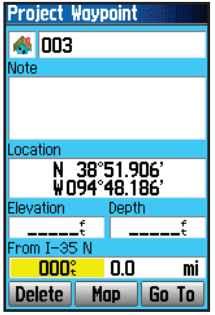
Average Location Page

Waypoint Options Menu

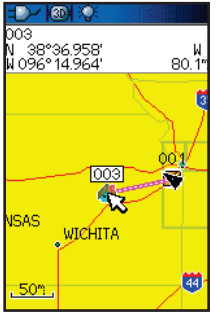
Using Waypoints



Moving a Waypoint



Project Waypoint Page



Projected Waypoint on the Map

To Move a Waypoint on the Map Page:

1. Use the Find Feature to display the Information Page for the desired waypoint. (Refer to page 23.)
2. Highlight the "Map" button at the bottom of the page and press **ENTER** to display the waypoint on the map.
3. Press **ENTER** again to place a "Move" marker next to the waypoint.
4. Use the **ROCKER** key to drag the waypoint to the desired location on the map and release to place it there and press **ENTER**.

Projecting a Waypoint

Projecting a waypoint from any map item (another waypoint, etc.) allows you to establish a new waypoint on a bearing and distance projected from that map item.

To project a waypoint:

1. Select an item from the Find Menu and display the Information Page.
2. Press the **MENU** key to display the Options Menu and select "Project Waypoint"
3. Press **ENTER** to display the Project Waypoint Page
4. Enter the distance and bearing to the projected waypoint in the appropriate fields at the bottom of the page and press the **QUIT** key to finish.

Using the Find Menu

The Find Feature provides you with a method for searching for Cities, Exits and Marine Tide Stations which are included in the GPSmap 76C basemaps. If you have downloaded Garmin MapSource mapping data that contains additional map detail, you can search for and find Points of Interest, Addresses and Intersections. If you download BlueChart® data*, you can find detailed Marine items such as Wrecks and Obstructions, NAVAIDS, and Anchorages. If this additional data is not loaded, these options are not available. Waypoints and Geocache Points are items you can create and add to the Find Menu.

Searching for a map item is simplified by separating the map database into groups which are shown as icons on the Find Menu Page.

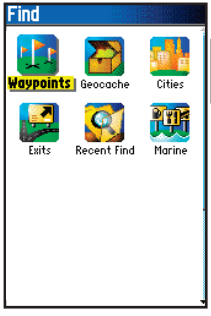
- When you access a Find group list, by default it will contain only those items near your current location or the Panning Arrow (if active).
- To save effort in searching again for an item already found, you can use the "Recent Finds" group which contains a list of 50 last found items of all categories.

The options menu for each map item group offers its own unique search options such as "Find By Name", "Find Nearest", "Select Symbol" (for Waypoints), "Change Reference" (by moving the map Panning Arrow to a new location), "Nearest Containing" (a key word you enter), "Select Category" (for those groups such as Food and Drink, Lodging, etc.). Using these options can effectively shorten your search.

** Refer to the Garmin website: http://www.garmin.com//cartography/mapSource/bluechartCD.jsp*

Using Find

Press the FIND key to display the Find Menu



Find Menu

Auto Ordering Option places the last selected category at the top of the order.

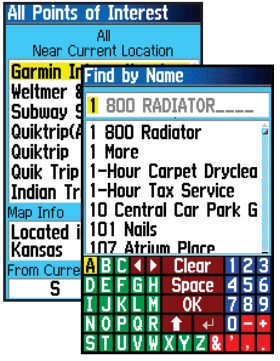
Options Menu for Waypoints

Options Menu for groups with Sub-Categories

Find By Name Option

Using Find

"Finding" icon displays while searching



Pressing the FIND key with Find Menu displayed will take you to this page.

Recent Finds List

Searching for a location using Find By Name

If you know the name of the location you want to find, the Find By Name search option may be the easiest method of searching.

To find a location using Find By Name:

1. Press the **FIND** key to display the Find Menu.
2. Use the **ROCKER** key to highlight the Group icon for the type of item you want to search for and press **ENTER** to display the page. Or, if you want to search the entire item database, select "All Points of Interest".
3. Press the **MENU** key to select "Find By Name".
4. Use the **ROCKER** key and **ENTER** key to operate the keypad at the base of the display and enter the name of the location, when the list displays a match, highlight "OK" and press **ENTER** to go a list where you can select the item.
5. Next, the Information Page for that location will display.

Searching for a location using Recent Finds

The Recent Finds Page saves all of your most recent searches on a list that places your last found location at the top of the list. When you exceed the number of entries the list can hold, the oldest is deleted.

To return to a recently found item:

1. With the Find Menu displayed press the **ROCKER** key to highlight the Recent Finds icon and press **ENTER** to display the Recent Finds List.
2. Use the **ROCKER** key to select the list item you want view and press **ENTER** to display the Information Page for that item.

Using the Find Item Information Page

When you have selected a Find item and pressed the **ENTER** key, an Information Page displays with detailed information about the item. This page contains:

- A title (if a waypoint, it can be renamed and a map symbol assigned)
- An information field (if a waypoint, information you add, if a map item, an address or other description)
- Location coordinates, if the item is a waypoint.
- Elevation and depth if a waypoint.
- Direction and distance from current location or the map pointer

At the bottom of the page are three on-screen buttons, these buttons will appear differently depending on whether you are selecting a Find item to navigate to or adding a Find item to a route list as a waypoint.

- If selecting an item as a destination, the three buttons will display as:

  Delete - Remove from the Waypoints list.

  Map - display on the Map Page.

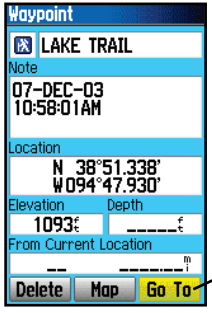
  Go To - start a Go To navigation.

- If selecting an item to add to a list of points, these three buttons will be displayed.

  Save - save as a waypoint.

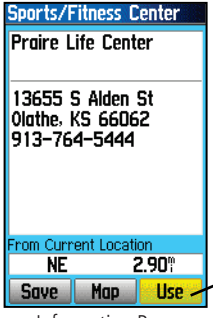
  Map - display on the Map Page.

  Use - insert into a list of points on a route.



Selected as a destination

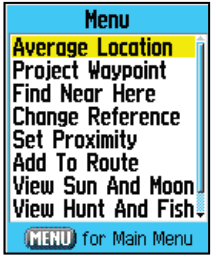
Information Page for a Waypoint



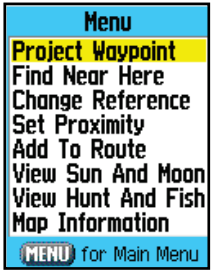
Selected as a Point on a Route

Information Page for a Map Item

Using Find



Waypoint Information Page Options include "Average Location"

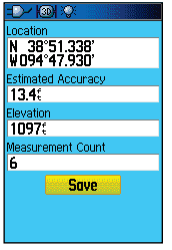


Find Map Database Item Information Page Options

The Find Information Page Options Menu offers eight options for using a Find Item as a tool for navigation.

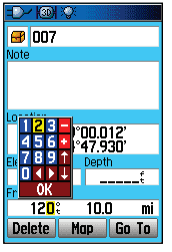
To use the Find Item Information Page Options Menu:

1. With an Information page displayed for a Find item, press the **MENU** key to display the Options Menu.
2. Use the **ROCKER** key to highlight the desired option and press **ENTER** activate:



- **Average Location** - Used with waypoints only, it samples a waypoint location over time and averages the result for a more accurate position reference.

  (Refer to page 19 for detailed information on Location Averaging)

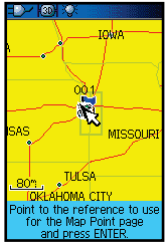


- **Project Waypoint** - Create a new waypoint by referencing another location by entering a bearing and distance from the referenced location (present position or Find Item location)

  (Refer to page 20 for detailed instructions.)

- **Find Near Here** - Returns you to the Find Menu where you can search for map items near the item defined on the Information Page.

- **Change Reference** - Point to a new location on the map Page using the Panning Arrow and press **ENTER**.

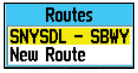


- **Set Proximity** - Program an alarm to sound when you are within a speci fied radius of an item defined by the Information Page.

  (Refer to the Section on Proximity Waypoints on page 58 for detailed information.).

- **Add To Route** - Include this item on a New Route or add it to an existing route.

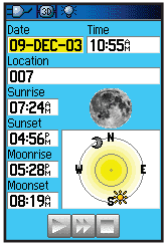
  (See Using Routes page 45 on for details)



Using Find

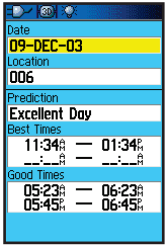
- **View Sun and Moon** - View the Sun and Moon tables for this item location.

  (Refer to page 62 for detailed information about the Sun and Moon Tables.)



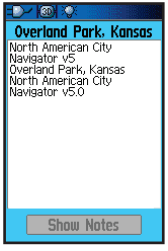
- **View Hunt and Fish** - View the Hunt and Fish tables for this item location.

  (Refer to page 63 for detailed information about the Hunt and Fish Tables)

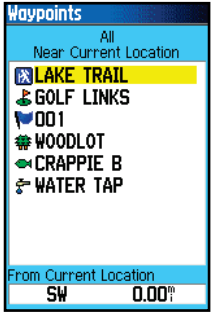


- **Map Information** - Display the map that the map item originated from.

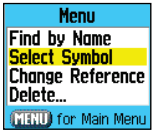
  (Refer to page 77 of the Appendicies for information about downloading detailed maps.)



Using Find

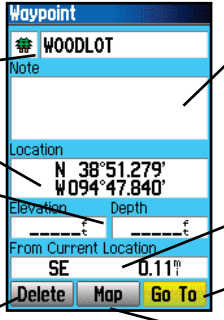


Find Waypoints List



Find Waypoint Options

Waypoint Information Page



Waypoint Name and Symbol

Waypoint Location Coordinates, Elevation and Depth (if applicable)

Remove Waypoint from List

Enter a notation using the on-screen keypad

Distance and Direction from Current Location

Navigate to a Waypoint Location

View Waypoint on Map Page

Searching for a Waypoint

The Waypoints List is your storage file for all created and saved waypoints. Waypoints can be created from marking your location, pointing to a place on the map or saving any other Find item (i.e. city, restaurant) as a waypoint. Waypoints are stored in alpha/numerical order and are also identified by a symbol assigned from a list of symbol types. Waypoints can be selected as destinations and added as points on a route.

To find a Waypoint:

1. Press the **FIND** key to display the Find Menu.
2. Highlight the Waypoint icon and press **ENTER** to display the Waypoints List.
3. Use the **ROCKER** key to scroll up and down the list to find a waypoint. If the list is large, you can press the **MENU** key to display a list of search options.

   "Find By Name" allows you to enter the name of the waypoint in a search field.

   "Find Nearest" allows you to list only those waypoints near your current location.

   "Select Symbol" allows you to search for only those waypoints of a specific type.

   "Change Reference" allows you to use the Panning Arrow to select a point on the map other than your current location.
4. Once found, a waypoint information page can be viewed by pressing the **ENTER** key. The data can be edited or select "Go To" to navigate to a waypoint.

Searching for a Geocache

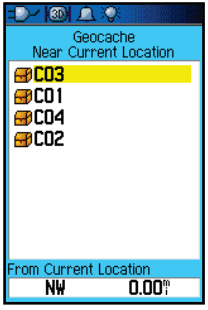
The Find Geocache feature allows you to view the list of geocache locations that have been either, created using the GPSmap 76C or downloaded from your computer. A geocache location is actually a waypoint with a special geocache symbol assigned to give special significance and to allow it to be separated from others on the waypoints list. For more information on creating a geocache point refer to Geocache Setup instruction on page 55 and *www.garmin.com/products/gpsmap76c/*.

To find a Geocache:

1. Press the **FIND** key to display the Find Menu.
2. Use the **ROCKER** key to highlight the Geocache icon and press **ENTER** to display the Geocache List. You can display either found geocaches or those that have not been found.
3. Use the **ROCKER** key to highlight the desired geocache on the list and press **ENTER** to display the information page.
4. Highlight the "Go To" button and press **ENTER** to navigate to the geocache location. When you navigate to a geocache, the Compass Page changes to "Geocache Navigation" mode and any additional information about downloaded cache location is displayed in the comment field.

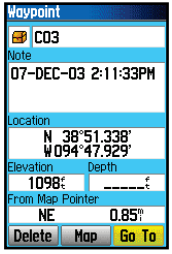
When a geocache is found, the unit will mark the cache as found, log an entry into the calendar and provide an option that when activated will show the next nearest cache.

Using Find

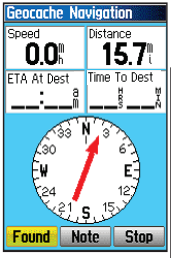


Find Geocache List

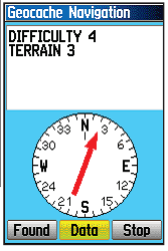
Options Menu



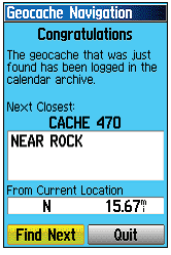
Information Page



Use Found button when reach a geocache

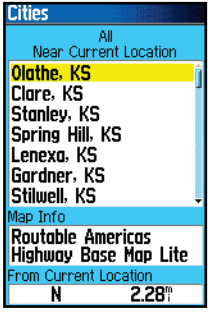


Use Data button for information about a geocache

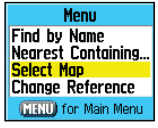


"Find Next" Option

Using Find

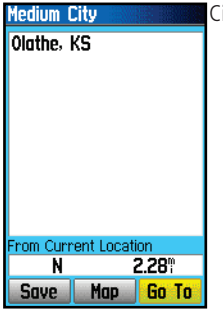


Find Cities List

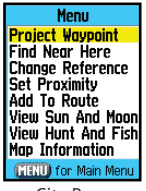


Cities Options Menu

Select Maps Options



City Information Page



City Page Options

Searching for a City

The Find Cities feature allows you to search for any city listed in the mapping database (either in the basemap or from downloaded detailed mapping data)

To find a city:

1. Use the **ROCKER** key to select the 'Cities' option, then press it display the find by 'Nearest' list of cities.
2. Use the Options Menu to find a city "By Name", by entering a key word for "Nearest Containing" , use "Select Map" to select a different map to search from or to "Chance Reference" from your current location using the Map Pointer to find cities nearest a new location on the map.
3. If using find "By Name", begin spelling the name of the city by using the keyboard. When you have entered enough characters to define the name, a match list displays. If you are using find "By Nearest" scroll through the list to find the city you want. If using "Nearest Containing" use the keyboard to enter the key word to display a list of cities using that word.
4. Use the **ROCKER** key to select the desired city from the list and then press **ENTER** to display the Information Page for that city.
5. With the Information Page displayed, you can select 'Go To', 'Map', or 'Save' options.

Searching for an Interstate Exit

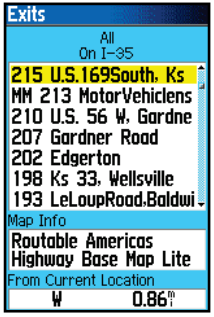
The Find Exits feature allows you to search for the nearest Interstate Exits.

1. Press the **FIND** button to display the Find Menu.
2. Select the Exits icon, then press **ENTER** to display the Exit List.
3. Highlight and select an exit type by pressing **ENTER**.
4. A list of exits nearest to you displays. The title box indicates the interstate highway which is served by the exits. Two fields at the bottom of the page indicate distance and bearing to the exit.
5. Scroll through the list to highlight the desired exit.
6. Press **ENTER** to display the Information Page for that exit. This page contains the exit description with a list of available services near that exit along with the distance and bearing fields.
7. Use the **ROCKER** key to move to the list of services and highlight a selection from the list.
8. Press **ENTER** to display the Information Page for the selected service.

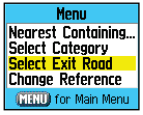
The Exit Services Information Page displays the name of the service, its direction from the exit, and a list of the services available.

At the bottom of these Information Pages are on-screen buttons for 'Go To', 'Map', and 'Save'.

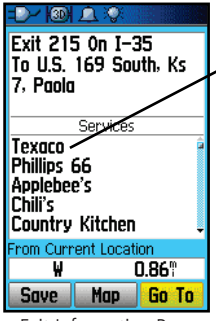
Using Find



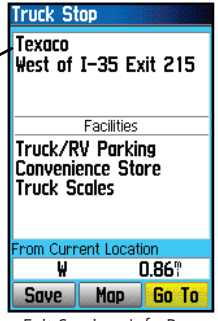
Find Exits List



Options Menus

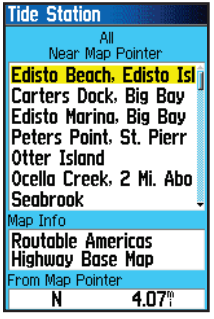


Exit Information Page

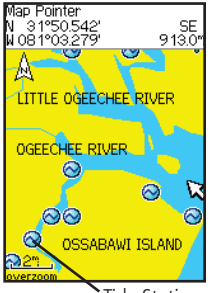


Exit Services Info Page

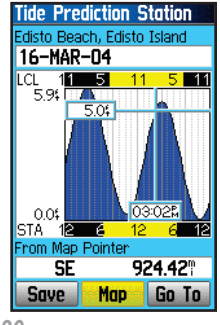
Using Find



Tide Station List



Tide Station Symbols on Map Page



Tide Station Prediction Page *(High and Low tides for a 24 hour period for the date shown)*

Searching for a Marine Point

The Find Marine Point feature allows you to search for the marine Tide Prediction Stations provided in the marine basemap contained in your GPSmap 76C . When detailed marine map data has been downloaded from MapSource Marine Charts you can also view marine items such as marinas, navaids, wrecks, and obstructions.

To find a Tide Prediction Station

1. Press the **FIND** button to display the Find Menu.
2. Select the Marine Points icon, then press **ENTER** to display the sub-icon(s) for marine items supported by the basemap and downloaded detailed marine charts.
3. Use the **ROCKER** key to highlight and select the Tide Station icon, then press **ENTER**.
4. A list of tide stations nearest to you displays. If a "None Found" message displays, then you are not currently located near a coast line. Press the **MENU** key to display the Tide Station Options Menu. Select from "Nearest Containing" or "Change Reference". You can enter a key word for a known tide station or can use the map pointer to move to the nearest coast line and then press **ENTER** to establish a location near marine items.
5. Select a tide station from the list and press **ENTER** to display the information page for that tide station.

At the bottom of the Information Page are on-screen buttons for 'Go To', 'Map', and 'Save'.

To find a Wreck or Obstruction

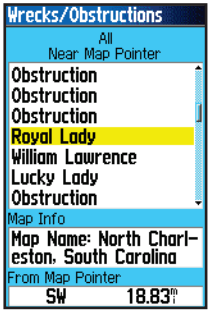
1. Press the **FIND** key to display the Find Menu.
2. Select the Marine Points icon, then press **ENTER** to display the sub-icon(s) for marine items supported by the basemap and downloaded detailed marine charts.
3. Use the **ROCKER** key to highlight and select the Wrecks/Obstructions icon, then press **ENTER**.
4. If you get a "None Found" message, you are too far from the coastline or out of the area of map data coverage. Press the **MENU** key and use the "Change Reference" option as explained on the previous page.
5. Select an item from the list and press **ENTER** to display the information page for that item.

At the bottom of the Information Page are on-screen buttons for 'Go To', 'Map', and 'Save'.

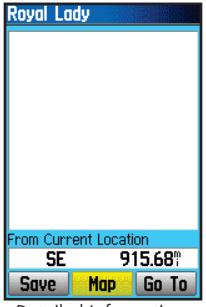
To find Marine Services

1. Follow the same procedure as above to access the Marine Points Menu, then select the Marine Services icon.
2. If the "None Found" message displays, follow the same steps explained previously to display a list of marine services near the location you have selected.
3. When the information page for a selected service displays, you can highlight each information category and press **ENTER** to display additional information.

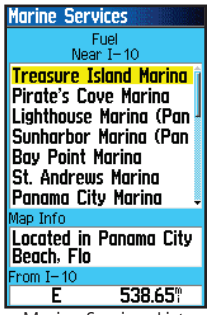
Using Find



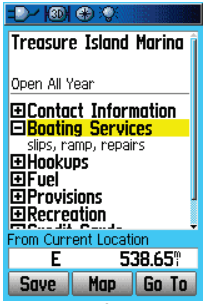
Wrecks/Obstructions List



Detailed Information

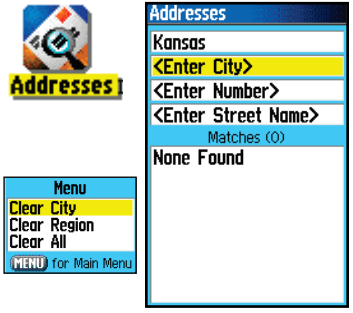


Marine Services List

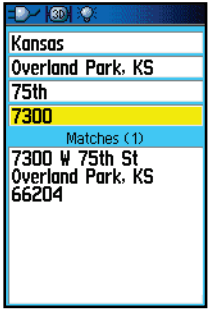


Detailed Information

Using Find



Find Addresses Search Page



Find Address Matches

Address Information Page

Searching for an Address

The Find Addresses feature allows you to search for an address within the coverage of downloaded detailed mapping data. Enter the street number, street name, and city and the Find Feature will match that data with addresses in the map database.

To find an Address:

1. Press the **FIND** key to display the Find Menu.
2. Highlight the Addresses icon and press **ENTER** to display the 'Find Addresses' page.
3. If your unit has a GPS fix the "Region" field at the top of the page will be completed with your current region and the <Enter City> field will be highlighted.
4. Press **ENTER** to display a list of cities for the region and make your selection. Use the on-screen keypad to enter the first few letters of the city name, until the desired city moves to the top of the list. Highlight "OK" on the key pad and press **ENTER**. With city highlighted on the list, press **ENTER** to insert the city in the field.
5. Next enter the Street Number <Enter Number> using the on-screen keypad. Enter "OK" to place the number.
6. Finally press **ENTER** to display the street list. Use the on-screen keypad to enter enough of the street name to display a match on the list below. For name streets, like Main or Elm, enter the core name instead of "E", "W", etc., as the search will move faster. When done, a list of matches appears below. Select one and press **ENTER** to display the Information Page.

Searching for an Intersection

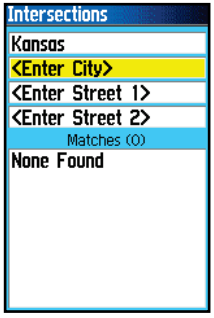
The Find Intersections feature allows you to search for an intersection within the coverage of downloaded detailed mapping data. Enter the two street names and city and the Find Feature will match that data with intersections in the map database.

To find an Intersection:

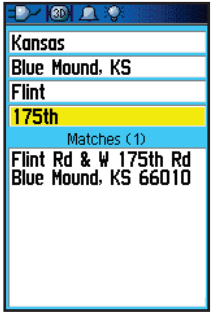
1. Press the **FIND** key to display the Find Menu.
2. Highlight the Intersections icon and press **ENTER** to display the "Find Intersections" search page.
3. If your unit has a GPS fix, the "Region" field at the top of the page will be completed with your current region and the <Enter City> field will be highlighted.
4. Press **ENTER** to display a list of cities for the region and make your selection. Use the on-screen keypad to enter the first few letters of the city name, until the desired city moves to the top of the list. Highlight "OK" on the key pad and press **ENTER**. With city highlighted on the list, press **ENTER** to insert the city in the field.
5. Highlight <Enter Street 1> and follow instructions in step 6. Repeat for <Enter Street 2>.
6. Press **ENTER** to display the street list. Use the on-screen keypad to enter enough of the street name to display a match on the list below. For name streets, like Main or Elm, enter the core name instead of "E", "W", etc., as the search will move faster. When done a list of matches appears below. Select one and press **ENTER** to display the Information Page.

Using Find

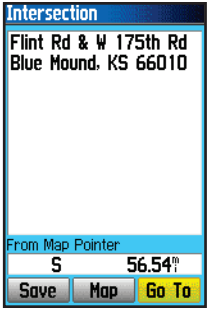
Options Menu



Intersections Search Page



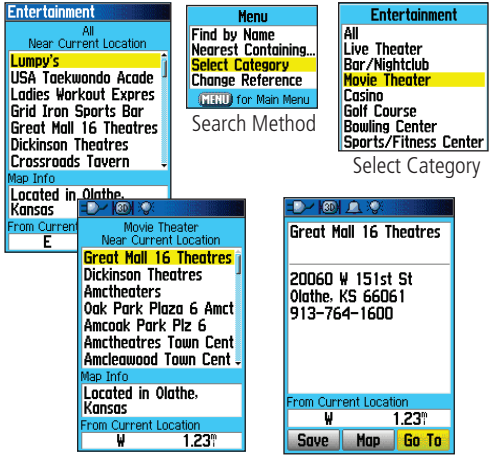
Intersection Matches



Intersection Info Page

Using Find

Find POI Topic List



Search Method

Select Category

Category List

POI Information Page

Searching for a Point of Interest

You can use the Find Point of Interest feature to locate a nearby restaurant, lodging, landmark, public building, park, etc. However, you must have downloaded MapSource detailed mapping that supports this feature otherwise these options, plus Address and Intersection options, are not functional.

To find a point of interest:

1. Press the **FIND** button to display the Find Menu.
2. Highlight a desired "Points of Interest" icon and then press **ENTER** to display the list of nearest points.
3. Press the **MENU** key to choose from search options or choose "Select Category" to narrow your search.
4. Highlight the desired item from the list and then press **ENTER** to display the Information Page for that item.

If you are searching for a restaurant that is part of a national chain, only the nearest restaurant to your location is displayed when you search using the "Find Nearest" method. If you search using the "By Name" method, then all of the locations for that chain in the mapping database will be displayed with the closest to your current location listed first.

The Main Menu

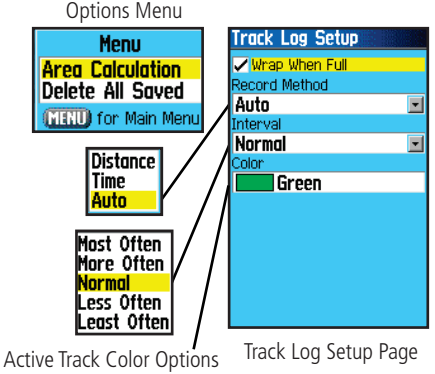
About the Main Menu

The Main Menu is the directory for all unit features not in the Main Page sequence with the exception of Mark Waypoint and Find, which are accessed by pressing the **FIND** and **ENTER/MARK** keys. The Time and Date can be found at the bottom of this page. A detailed discussion of each of the Main Menu features follows this brief introduction. Use the **ROCKER** key to highlight a feature name and then press **ENTER** to display the feature page.

- **Tracks -** This feature allows you to maintain a record of your movements (track log) with information such as time and location. It can be saved for later use.
- **Routes -** Create a list of points that you wish to navigate to in a specific order and save for later use.
- **Highway -** A useful graphic perspective for navigating a route.
- **Setup -** Controls the settings for many of the unit operating system features.
- **Proximity -** An Alarm feature for a defined circle around a specified waypoint.
- **Calendar -** An outdoor calendar with data access as well as waypoint association.
- **Alarm Clock -** This feature allows you to use the GPSmap 76C as an Alarm Clock.
- **Calculator -** A standard or scientific calculator for measurement conversions, etc.
- **Stopwatch -** A multi-featured stopwatch.
- **Sun & Moon -** Sunrise and sunset times, moon phases, and sun and moon location for any given date and time.
- **Hunt & Fish -** A table of time frames for best hunting and fishing opportunities for any given location and date.
- **Games -** A series of challenging games. Some incorporating GPS navigation.

Using Tracks

Tracks Page with Saved Track Log



Using a Track Log

The Tracks feature creates an electronic trail on the map page as you travel about and is referred to as a Track Log. A track log contains information about points along its path, including time, position, elevation and depth (requires NMEA input, see page 48).

Use a Track Log to:

- Record your movements for a given time and place and save it.
- Measure the area of any space you encompass with a track.
- Retrace your path in either direction.

To create a Track Log:

1. Press and release the **PAGE** key until the Main Menu displays. Then use the **ROCKER** key to highlight the Tracks icon.
2. Press **ENTER** to display the Tracks Page. The page contains On and Off buttons to activate or cancel the Track Log and a Track Log meter which displays the percentage of track log space used.
3. Beneath the Track Log field are four on-screen buttons to: "Setup" a track log, "Clear" the track log, "Save" a track log, and to activate the "TracBack®" feature for the current log.
4. To setup a track log, highlight the "Setup" button and press **ENTER** to display the Setup page. The first item on the page is "Wrap When Full". If you don't check this item, then the track log will stop recording when full instead of overwriting the oldest data with new.
5. Highlight the "Record Method" field and press **ENTER** to display

Using Tracks

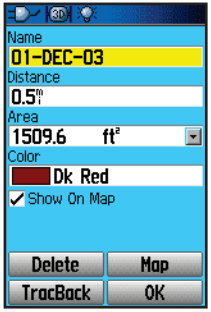
the Distance, Time and Auto options. Because a track is made of a series of points that define your path of travel, they can be placed a specified "Distance" apart or placed at a "Time" interval you specify. The "Auto" option allows you choose from five intervals.

6. Next, set the interval for setting track points. You can choose from distance, time or frequency values.
7. The last item is the Active Track Color Options list.
8. When completed, press the **QUIT** key to return to the Track Log Page.

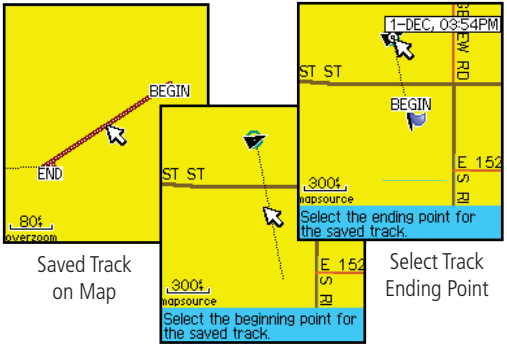
To Save a Track Log:

1. With the Tracks Page displayed, highlight the "Save" button and press **ENTER,** you will be asked "Do You Want To Save the Entire Track?". If you select "Yes", a "Saving Track" message appears followed by the Saved Track Page. The new saved track will be a representation of the entire track log from beginning to end.
2. If you select "No" a map showing the entire track appears and prompts "Select the beginning point for the saved track." Use the **ROCKER** key to move the Panning Arrow to the point on the track line that you want to become the beginning of the Saved Track and press **ENTER**.
3. The next prompt asks you, "Select the ending point for the saved track." Use the Panning Arrow to identify a point on the track that you want as the End Point and press **ENTER.** A "Saving Track" message appears followed by the Saved Track Page.

(cont. on page 38)



Save Track Page

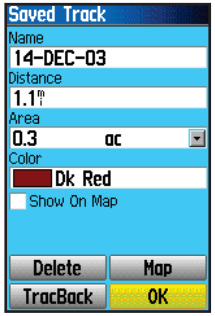


Saved Track on Map

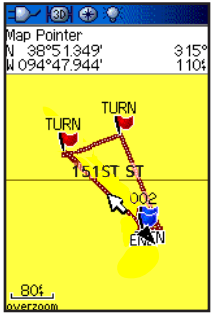
Select Track Ending Point

Select Track Beginning Point

Using Tracks

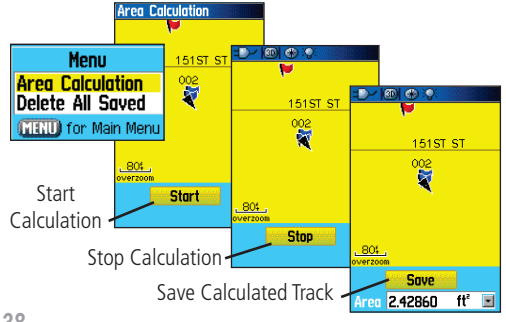


Saved Track Page



Saved Track on the Map Page

Area Calculation Option



4. The Saved Track Page allows you to: Rename the track, view the track distance, view the calculated area encompassed by the track (an area is defined even if the track is open ended), specify a color for the track when displayed on the map page (Show On Map). On-screen buttons at the bottom of the page allow you to Save the track (OK), Delete, View it on the Map, and navigate the track back to any point along the track (TracBack).

To view a Track on the Map:

1. With the Saved Tracks Page for the track or the Track Log displayed, highlight the Map button and press **ENTER** to display the Map Page.
2. A map showing the entire track appears with Begin and End markers. Any User Waypoints added to the Track will be displayed as well.

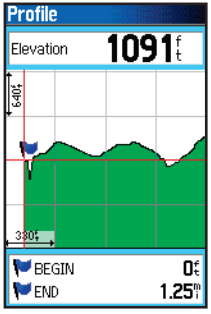
To calculate the area of a Track:

1. With the Track Log Page displayed and the Track Log On, press the **MENU** key to display the Area Calculation option.
2. Highlight the option and press **ENTER** to display the calculation Start Page. Press **ENTER** to start the calculation as you begin to move and define the area's boundaries. The page now displays a Stop button.
3. When you have completed defining the area, press **ENTER** to display the page with a Save button.
4. Press **ENTER** again to save the new track to the Saved Tracks List.

Track Profiles

A Track Elevation Profile can be created from Digital Elevation Models (DEM) maps (MapSource U.S. Topo 24K) which include elevation data contained in the map. In order for a track profile to be created, you must be located within the geographic area supported by the DEM map data loaded on your GPSmap 76C. A Track Profile page displays when you select "Profile". See page 77 for more information about MapSource U.S. Topo 24K maps.

View Profile Page Option



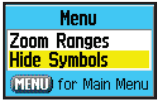
Track Profile Page

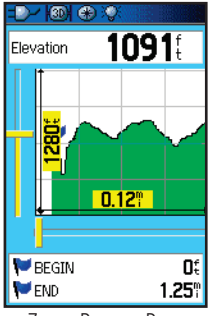
To view a Track Profile:

1. With the Saved Tracks Page for the Track displayed, press the **MENU** key to display the Profile option.
2. Then press **ENTER** to display the Track Profile.

   The beginning of the track is marked by a flag and you can scroll across the profile by pressing the left **ROCKER** key arrow.

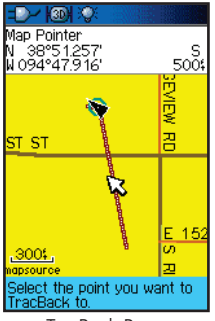
   As you scroll the profile, the elevation for each point on the profile is displayed at the top of the page and the distance from the Start point and the End Point are displayed at the bottom.
3. At any point along the profile, you can press **ENTER** to display that point on the map.
4. Press the **MENU** key to use "Zoom Ranges" and "Hide Symbols" options.



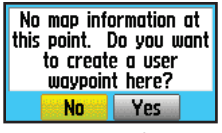


Zoom Ranges Page

Using Tracks



TracBack Page



Create User Waypoint Prompt

To Use the TracBack feature:

1. With the Saved Tracks Page for the track or the Track Log displayed, highlight the TracBack button and press **ENTER** to display the TracBack Page.
2. A map showing the entire track appears and you are prompted to select the point you want to TracBack to. Use the **ROCKER** key to move the Panning Arrow to the desired point on the map and press **ENTER** to start navigating the TracBack.
3. Select either "Follow Road" to route back to the selected point using available roadways or "Follow Track" to retrace your original path of travel. Highlight the "Don't ask Again" option and press **ENTER** if you want to use the same option the next time you use TracBack.
4. When the TracBack Navigation Page displays, directions to the first turn on the track display at the top of the page. Move in the direction of the first turn. When you reach the first turn the display will provide direction to the next turn, and so on, until you have reached your destination.
5. To exit a TracBack, press the **MENU** key and select "Stop Navigation".

To Create a User Waypoint on a Saved Track:

1. With a saved track displayed on the map, use the **ROCKER** key to move the Panning Arrow to the point on the track that you want to mark as a user waypoint. Press **ENTER** to display the Mark Waypoint Page.
2. Customize the user waypoint if desired as explained on page 19, then highlight the "OK" button and press **ENTER** to save.

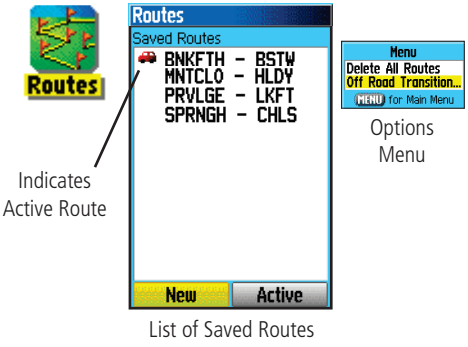
Creating and Using a Route

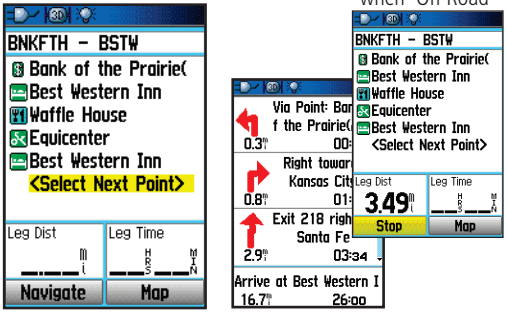
Route navigation allows you to create a sequence of intermediate waypoints which lead you to your final destination. The GPSmap 76C stores 50 routes, each with up to 250 waypoints each. A route can be created and modified from the Routes Page, and waypoints can be added to a route from the Find Menu. More complex routes can be created using a PC and MapSource mapping programs and then transferred to the unit memory.

To create a route and save it:

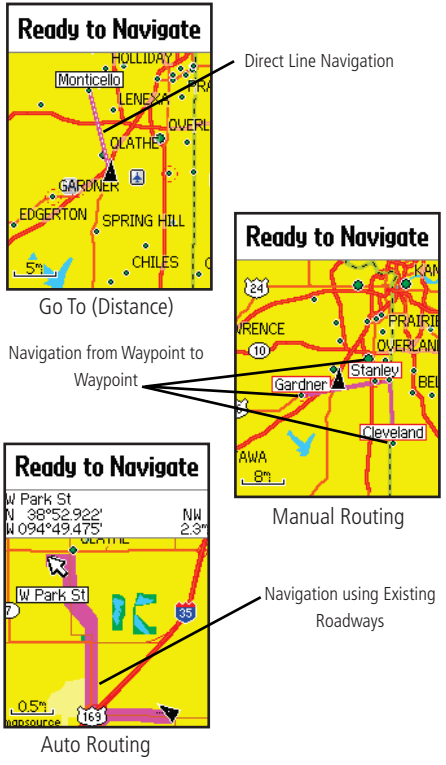
1. Access the 'Routes' page from the Main Menu. The page has a "New" button, an "Active" button and a list of saved routes.
2. Use the **ROCKER** key to highlight the 'New' button and press **ENTER** to display the route Setup Page.
3. With an empty row (dashed) in the route list highlighted, press **ENTER** to display the Find Menu.
4. Use the Find Menu to select a route waypoint from one of the Find Menu groups and display the Information Page for the selected waypoint, city, exit, point of interest, etc. Highlight the on-screen 'Use' button and press **ENTER** to place it on the Route Waypoint List.
5. To add more waypoints to the route, repeat the process in Steps 3 and 4. You can rename the route if desired.
6. Press **QUIT** to save it to the Saved Routes list. Or, highlight the "Navigate" button and press **ENTER** to navigate.

Using Routes





Using Routes



Methods of navigating to a destination:

- When you activate the "Go To" button on the Information Page for a User Waypoint or other Find Menu items, the GPSmap 76C creates a straight path (point to point) from your current location to that location.
- When you press the "Navigate" button on a Route page the GPSmap 76C creates a route composed of several User Waypoints or Find Menu items, with the last being your destination. It navigates directly from point to point. Before each turn in the route a turn page displays a guidance message and graphic of the turn. You can view the turns at any time by pressing the **ROCKER** key Up or Down arrows while the route is active.
- These two navigation methods change when you select the "Follow Roads" option from the Routing Setup Page. Both Go To navigation and point to point routing become routes that allow you to navigate using roads.

  The routes use existing roadways (either those in the basemap or from downloaded detail mapping) to automatically calculate a route to your destination. Turns on roadways are added to the active route page and will be preceded by a guidance message with graphic display of the turn.

  If there are not enough roads at your location to calculate a route, a message will display to advise you.

Navigating a Route

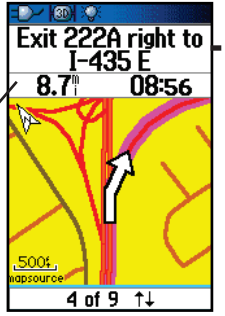
After you have created a route, you can begin navigation immediately or save it to the Saved Routes list as explained on page 41.

When you are navigating a route, a guidance message and graphic view of turns in the route will display as you approach each one. Using the "Follow Roads" option from the Routing Setup Page increases the number of turns and displays an Active Route page with a list of turns. If you selected the "Off Road" option you can view only the list of points for a route from the Active Route Page. (See Routing Setup on page 54.)

To Preview the Turns for an Active Route:

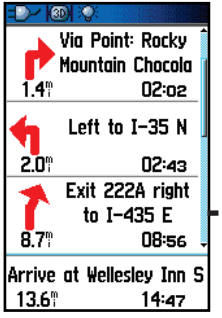
1. From the Routes Page, highlight the route from the Routes list.
2. Press **ENTER** to display the Route Page for the route.
3. Highlight the "Navigate" button and press **ENTER** to begin navigation and display the route on the Map Page.
4. To view the list of turns on the route, press the **PAGE** key to display the Active Route Page. The view any individual turn on the list, use the **ROCKER** key to highlight it and press **ENTER**.
5. The page displays the turn and guidance text and a small field at the bottom showing the turn number in sequence and total turns in the route. To scroll through all turn previews, use the **ROCKER** key Up and Down arrows. To exit the preview page, press the **QUIT** key.
6. To stop navigating, select "Stop Navigation" from the Map or Compass Page and press **ENTER**.

Using Routes



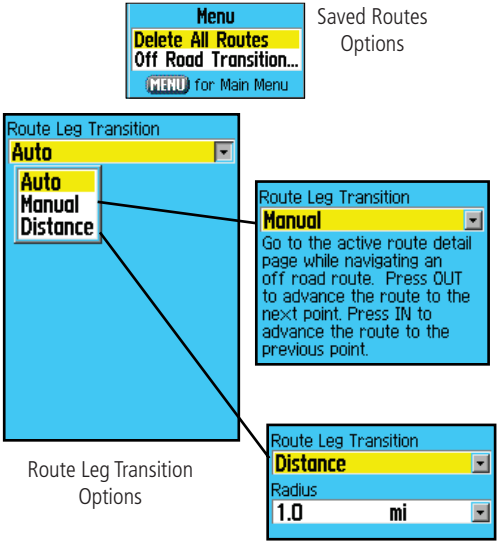
This field changes to red at the second warning beep, when you are about to reach the turning point.

Preview of Turn 4 of 9 Turns on a Route



List of Turns for an Active Route using the "Follow Roads" option

Using Routes


Menu
Delete All Routes
Off Road Transition...
MENU for Main Menu
Saved Routes Options
Route Leg Transition
Auto
Auto
Manual
Distance
Route Leg Transition
Manual
Go to the active route detail page while navigating an off road route. Press OUT to advance the route to the next point. Press IN to advance the route to the previous point.
Route Leg Transition
Distance
Radius
1.0 mi
Route Leg Transition Options
Route on the map will transition to the next leg point when you are within a 1 mile radius of that point.

Route Options

To delete the route:

1. Access the Saved Routes Page from the Main Menu and press the **MENU** key to display the Options Menu.
2. To clear the saved routes list, select "Delete All Routes" and press **ENTER**. A prompt will display, asking "Do you really want to delete all routes?". Select "Yes" and press **ENTER**.

To select the Off-Road transition for a route:

1. Access the Saved Routes Page from the Main Menu and press the **MENU** key to display the Options Menu.
2. To select a method for advancing the route to the next point on the route, select "Off Road Transition" and press **ENTER** to display the Off Route Transition Page.
3. Highlight the Route Leg Transition field and press **ENTER** to display the list of options. Select "Auto", "Manual" or "Distance."

Using Routes

Using the Route Detail Page Options:

To remove all waypoints:

1. Press the **MENU** key to display the Options Menu.
2. Highlight the "Remove All' option and press **ENTER**. At the prompt , select "Yes".

To reverse the route:

1. With the Options Menu displayed, highlight the "Reverse Route" option and press **ENTER**.

To create a vertical profile of the route:

(Available only if Garmin MapSource DEM map data is used. See page 77 for details.)

1. Select "Profile" and press **ENTER** to display the route profile.

To copy the route:

1. Highlight the "Copy Route" option and press **ENTER**. The copied route displays on the Routes Page and is named the same but followed by a numeral 1.

To delete the route:

1. Select "Delete" and press **ENTER**. At the prompt, select "Yes".

To change the route data fields:

1. Select "Change Data Fields" and press **ENTER** to display a list of data field options. (See page 11 for detailed information.)

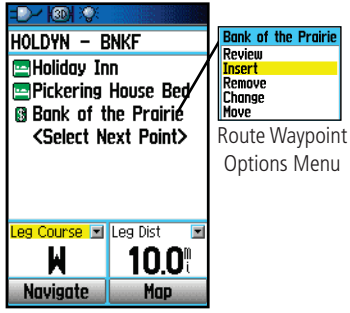
To restore default settings for the route:

1. Select 'Restore Defaults' and press **ENTER**.

To modify a waypoint on a Route Detail Page:

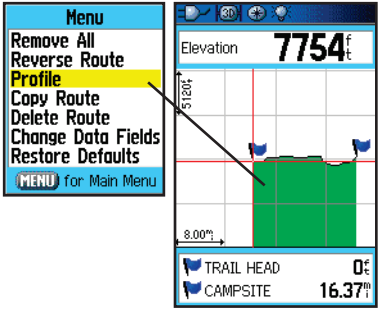
1. Select the waypoint from the list of waypoints and press **ENTER** to access the Route Waypoint Options Menu.

Route Detail Page



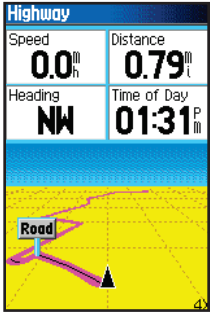
Route Waypoint Options Menu

Options Menu



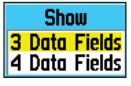
Route Vertical Profile using U.S. Topo 24K DEM mapping data

The Highway Page



Highway Page with an Active Route

Highway Page Options Menu



Data Field Display Options

The Highway Page

Whenever navigating a route, the Highway Page will guide you to the destination using data fields and a graphic highway. Up to four user selectable data fields display information such as speed, distance, time to next point on the route, etc. The list of data to display and the method of selection is the same as for the Compass Page and is explained in detail on page 11.

The Highway graphic provides visual guidance, taking you point by point to your final destination. Your course is represented by a centerline down the middle of the graphic. As you move toward each point on your route, the graphic will show the direction you should move to stay on course to the point. Five scale settings allow you to Zoom In or Out on the highway.

To navigate using the Highway Page:

1. While navigating, access the Highway Page from the Main Menu and observe your path of travel displayed on the highway graphic.
2. Press the **MENU** key to display the options menu. You can:

   Stop Navigation/Resume Navigation, Recalculate, Configure Data Fields from four to three with a destination guidance message, Change the Data Fields, or restore Defaults to factory settings.

The Setup Menu

The Setup Menu allows you to customize the GPSmap 76C to your personal preferences. Each selectable setup page is identified by an icon, which when highlighted displays the page when you press **ENTER**.

To access the Setup Menu:

1. From the Main Menu select the **Setup** icon and press **ENTER**.
2. With the Setup Menu displayed, select the feature you wish to modify and press **ENTER**.
3. Instructions for modifying features are explained in the sections that follow.

System Setup

The System Setup Page allows you to select from four modes of GPS operation, enable/disable WAAS (see page 80), designate battery type currently being used to power your unit, choose a display text language, set options for operation when disconnected from an external power source.

To change a System Setup feature:

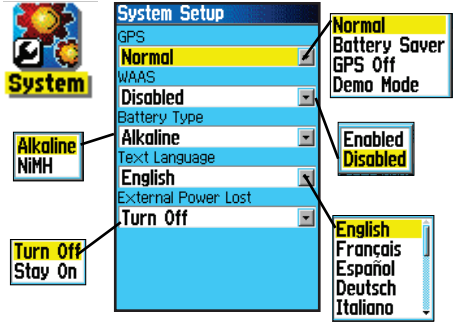
1. Use the **ROCKER** and **ENTER** keys to select the feature field and setup options.
2. With an option for a field highlighted, press **ENTER** to select.

To view the software version, press **MENU** and select "Software Version".

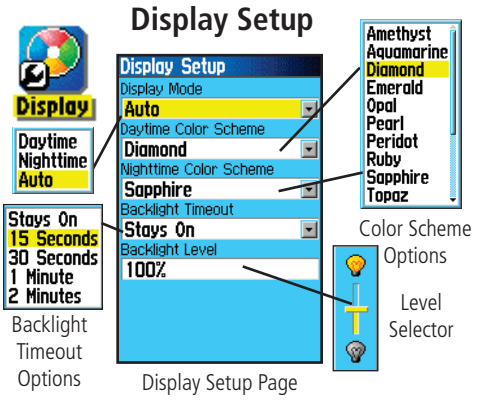
The Setup Menu

Setup Menu

System Setup



System Setup Page and Options



Display Setup

The Display Setup Page allows you to select a screen display color scheme for day and night viewing. You can set the backlight timeout and the level of brightness which can significantly save on battery power.

To change a System Setup feature:

1. Use the **ROCKER** and **ENTER** keys to select the feature field and setup options menus.
2. With an option for a feature field highlighted, press **ENTER** to select. Use the **ROCKER** key to slide the brightness level selector.

Interface Setup

The Interface Setup Page allows you to control the input/output format used when connecting your unit to a computer, external NMEA devices, a DGPS beacon receiver, etc. using a USB or Serial Port Cable

The following settings are available:

GARMIN - The proprietary format used to exchange waypoint, route, track log and MapSource data with a PC.

GARMIN DGPS - The proprietary format used with a Garmin differential beacon receiver (e.g., GBR 21). Provides for tuning of the beacon receiver directly from the GPSmap 76C.

NMEA In/NMEA Out - Supports input and output of standard NMEA 0183 version 3.01 data.

Text Out - Allows ASCII text output of location and velocity information. No input.

RTCM In - Provides DGPS input using a standard RTCM SC-104 format. No output.

RTCM In/NMEA Out - Allows DGPS input using a standard RTCM SC-104 format and supports the output of standard NMEA 0183 version 3.01 data.

RTCM In/Text Out - Allows DGPS input using a standard RTCM SC-104 format and supports the output of simple ASCII text output of location and velocity information

None - Provides no interfacing capabilities.

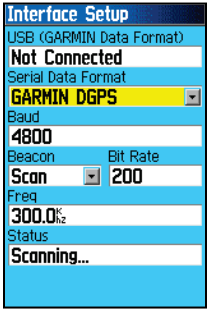
To change an Interface Setup feature:

1. Access the Interface Setup Page as explained at the beginning of this section.
2. Highlight the desired setting and press **ENTER**.
3. When you select Text Out and /or RTCM In, additional fields will appear. Use the **ROCKER** key to highlight "Baud Rate" and press **ENTER**. Use the **ROCKER** key to highlight the desired setting and press **ENTER**.
4. For Garmin DGPS or RTCM In/NMEA Out, use the **ROCKER** key to highlight "Beacon" and press **ENTER**. Use the **ROCKER** key to select "Scan" or "User" and press **ENTER**.

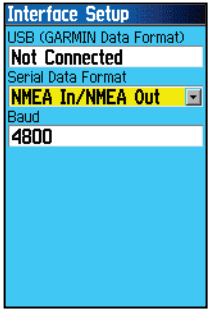
   If "Scan" is selected, the GPSMap 76C will automatically direct the beacon receiver to scan for available beacon transmitters.

   If "User" is selected, select the "Freq" and "Bit Rate" fields and enter the appropriate settings. The beacon status, signal-to-noise ratio and distance to beacon are displayed in the bottom of the page.

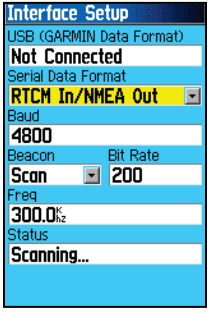
Interface Setup



Data Format Page for GARMIN DGPS



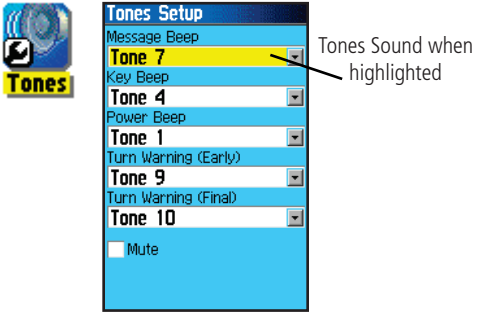
Data Format Page for:
NMEA In/NMEA Out
Text Out
RTCM In
RTCM In/Text Out



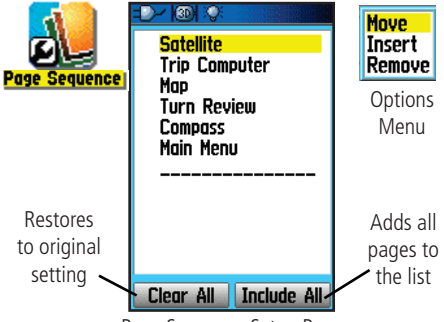
Data Format Page for RTCM In/NMEA Out

IMPORTANT NOTE:
When the USB cable is connected to the GPS map 76C, it is automatically detected and communicates only in Garmin Format. When the USB is connected, Garmin format will not communicate through the Serial connection, while all other formats can be used by the Serial connection with the USB still connected.

Tones Setup



Page Sequence Setup



Page Sequence Setup Page

Tones Setup

The Tones Setup Page allows you to customize the signal tones for a variety of unit features.

To use the Tones Setup feature:

1. Access the Tones Setup Page.
2. Use the **ROCKER** key to highlight the feature for which you want to set a tone and press **ENTER** to display the options menu.
3. Highlight the desired option and press **ENTER**. As you move down the list each different tone will sound.

Page Sequence Setup

The Page Sequence Setup Page allows you to reorder any of the Main Pages, plus additional pages when you cycle the **PAGE** key. If a page is added to the sequence, it will no longer appear in the Main Menu.

To move, insert or remove a page:

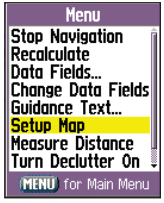
1. Access the Page Sequence Setup Page.
2. To move a page in the order, highlight the page and press **ENTER**. Select "Move", then move Up or Down until the desired position is displayed and press **ENTER**.
3. To insert a new page highlight the page you wish to insert before in the order and press **ENTER**. Select "Insert", then choose a page from the displayed list and press **ENTER**.
4. To remove a page, highlight the page and press **ENTER**. Select "Remove" and press **ENTER**.

Using the Map Setup Feature

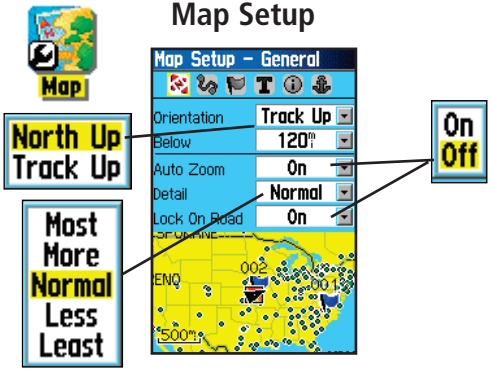
The map display for your GPSmap 76C is user configurable. A factory set of default settings currently control the Map Page display and may be satisfactory for your current requirements. The Map Setup pages allow you to determine how map features appear on the page by controlling map orientation, text size, track display, map item display, detailed map data display and more. It is suggested that you wait until you are more familiar with the operation of your unit before deciding what features you want to customize.

To customize the Map Page display:

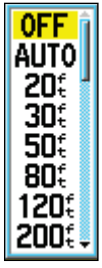
1. To access the Map Setup Pages, press the **MENU** key with the Map Page is displayed.
2. Scroll down the Menu to the "Setup Map" option and then press **ENTER** to display the Map Setup Page. At the top of the page are icons for each setup page.
3. Use the **ROCKER** switch to move from icon to icon when selecting a map setup page and to move up and down to the feature fields on each page.
4. With a Map Setup feature highlighted, press the **ENTER** key to display the list of options for that feature. Each Map Setup Page has a menu of general options. This menu can be accessed by pressing the **MENU** key with the page displayed.



Map Setup

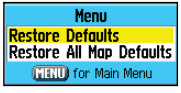


The "General Settings" Map Setup Page

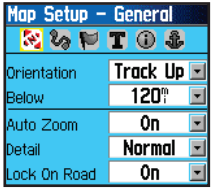


Many of the Setup features use the same type of option lists; Off/On, Most to Least, Small to Large, a scale from 20 feet to 500 miles and a keypad for numerical data entry.

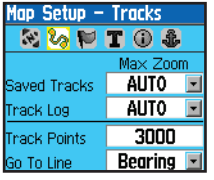
The Map Setup Options Menu allows you to quickly restore map settings.



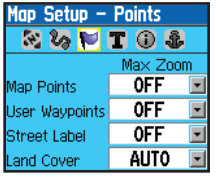
Map Setup



The "General Settings" Map Setup Page



The "Tracks Settings" Map Setup Page



The "Points Settings" Map Setup Page

Map Setup - General Settings

The first page of the Map Setup feature is the General Settings Page. Use this page: to select the map orientation, "North Up" (with north at the top of the map) or "Track Up" (with the map oriented in the direction of travel). "Below" sets the map scale at which the Track Up feature displays, all scales above that revert to the North Up map orientation. "Auto Zoom", zooms the map scale to include the beginning and ending points of a route. Detail selects the degree of map detail displayed. You can lock the Position Arrow to display on the nearest road, compensating for variances in map position accuracy.

Map Setup - Tracks Settings

The Tracks feature settings, which records a log of your movements for any given period of time, are accessed from the second page of the Map Setup. You have settings for maximum zoom for viewing saved tracks and active track logs. You can set the number of track points for recording a track and select either a bearing or course line for navigating a track.

Map Setup - Points Settings

The third page of the map setup feature allows you determine the map scale at which various map features display. You turn off the display, set it to Auto or select a value from 20 feet to 500 miles.

Map Setup - Text Settings

The fourth page of the Map Setup feature is the Text Settings Page. Use this page to select the text size for descriptions of map items on the Map Page. You can select from Small, Medium, or Large.

Map Setup - Information Settings

This page of the Map Setup feature displays a list of downloaded detailed maps such as topographic, marine charts, and MapSource maps with auto-routing capability. Use the **ROCKER** key to highlight the desired map and then the **ENTER** key to show it on the map display or turn it off.

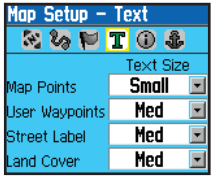
Pressing the **MENU** key displays list of options for displaying these maps.

Map Information Options Menu

Map Setup - Marine Settings

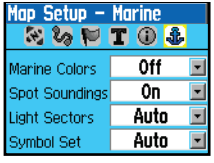
The last page of the Map Setup is the Marine Settings Page. Use this page to control the display of marine chart items when using downloaded marine charts (i.e. MapSource BlueChart® marine mapping data).

Map Setup



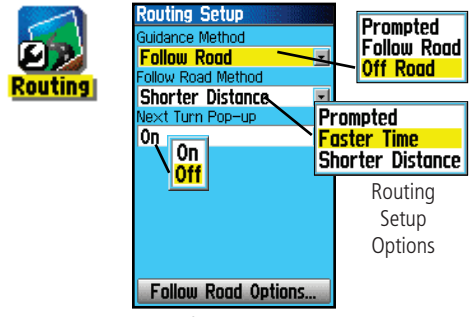
The "Text Settings" Map Setup Page

The "Map Information" Map Setup Page



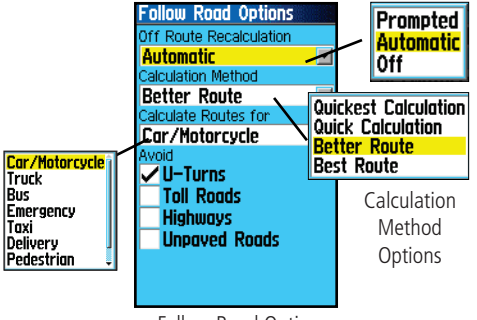
The "Marine Settings" Map Setup Page

Routing Setup



Routing Setup Options

Routing Setup Page



Calculation Method Options

Follow Road Options

Routing Setup

The Routing Setup Page allows you to customize the manner in which routing functions behave. There are setup and option menus for route creation and methods of navigation.

To Use Routing Setup Options:

1. Access the" Routing Setup Page.
2. Select the Guidance Method and choose "Prompted" if you want to be asked to choose one of the other two options ("Follow Road" or "Off Road") each time a route is being calculated. Otherwise, the chosen method will always be used for navigation.
3. If you chose "Follow Road" then the Follow Road Method field will offer a similar choice of "Prompted", "Faster Time" or "Shorter Distance".
4. If you want the Next Turn Preview Page to display just before each turn on the route, select "On" from the Next Turn Pop-Up field.
5. When using the "Follow Road" guidance method, select the Follow Road Options button and press **ENTER** to choose from a page of options.

Geocache Setup

The Geocache Setup Page allows you to find and record items hidden at geographic locations. Refer to the Garmin website for details and how to download geocache locations from the internet (www.garmin.com).

To use the Geocache Setup feature:

1. Access the Geocache Setup Page as explained at the beginning of this section.
2. Highlight the symbols fields and press **ENTER** to change from the default open and closed geocache symbols. Select "Yes" or "No" for Calendar entry when found.

IMPORTANT NOTE: Before setting up and placing physical geocache stations on public or private land, be certain you are not in violation of ordinances or laws governing use of these properties.

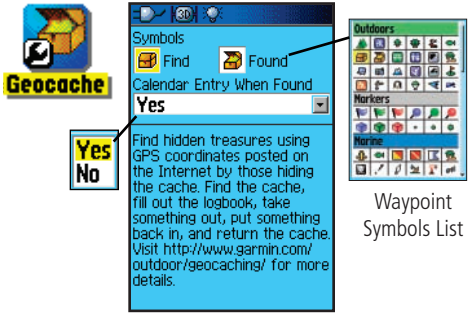
Marine Setup

The Marine Setup Page allows you to set values for limits which activate alarms for features specific to maritime navigation.

To use the Marine Setup feature:

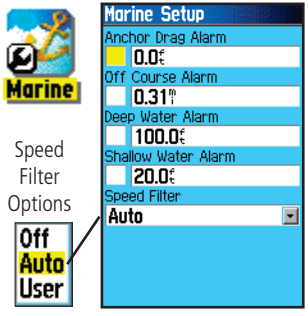
1. Access the Marine Setup Page as explained at the beginning of this section.
2. Highlight the box in front of each field to activate the desired alarm and press **ENTER**.
3. Highlight the field adjacent to each checked box, press **ENTER** and use the Number Keypad to enter the value for each alarm. Highlight "OK" and press **ENTER** to close.

Geocache Setup


Geocache
Symbols
Find
Found
Calendar Entry When Found
Yes
Yes
No
Find hidden treasures using GPS coordinates posted on the Internet by those hiding the cache. Find the cache, fill out the logbook, take something out, put something back in, and return the cache. Visit http://www.garmin.com/outdoor/geocaching/ for more details.
Outdoors
Markers
Marine

Waypoint Symbols List

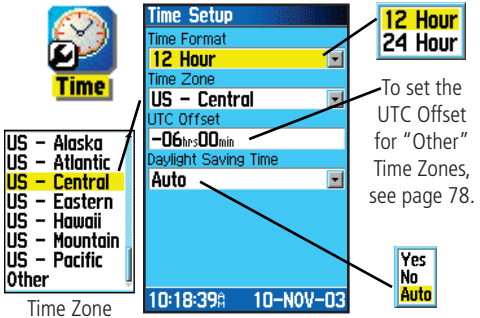
Marine Setup



Speed Filter Options

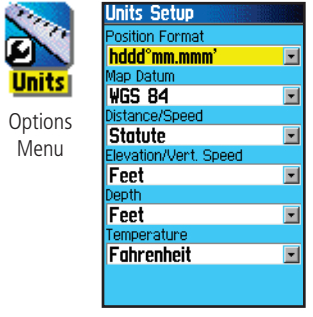
"Deep" and "Shallow" water alarms require NMEA sonar input interfacing.

Time Setup



Time Zone Options

Units Setup



Options Menu

Time Setup

The Time Setup Page allows you to set the correct time for your geographic location.

To use the Time Setup feature:

1. Access the Time Setup Page.
2. Highlight the Time Format field and press **ENTER** to choose from 12 or 24 (Military Time) hour formats.
3. Highlight the Time Zone field and press **ENTER** to choose the correct zone for your location. If you selected "Other", you must enter the correct Universal Time Coordinate for your location. Refer the UTC Chart on page 78.
4. Daylight Savings Time offers choices of Yes, No, and Auto.

Units Setup

The Units Setup Page allows you to select the units of measurement for your GPSmap 76C.

To use the Units Setup feature:

1. Access the Units Setup Page.
2. Use the **ROCKER** and **ENTER** keys to highlight the various units fields and select the desired units from the lists displayed.

   For more information about selecting Position Formats and Map Datums, refer to page 79 in the Appendices.

Heading Setup

The Heading Setup Page allows you to specify the type of heading display and the type of North Reference used to calculate your heading. Unless you have a working knowledge of Headings and North Referencing, it is recommended that you use the default values.

To use the Heading Setup feature:

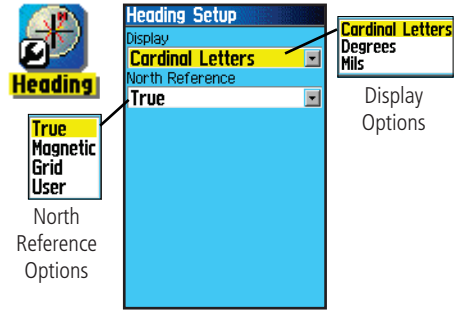
1. Access the Heading Setup Page as explained at the beginning of this section.
2. Highlight the Display field, press **ENTER** and select from Cardinal Letters, Degrees, or Mils to display the heading value.
3. Highlight the North Reference field, press **ENTER** and select from True North, Magnetic North, Grid North, or User Grid North.

Welcome Page Setup

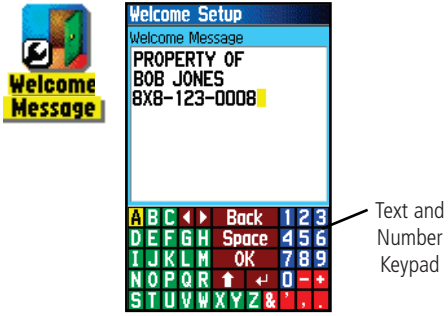
The Welcome Page Setup Page allows you to insert a message such as ownership information on the Welcome Page (the first page to display when you turn the unit on).

1. Access the Welcome Page Setup Page as explained at the beginning of this section.
2. Use the keypad at the base of the screen to enter your welcome message. Use the **ROCKER** key to select text and press **ENTER** to place text.
3. When completed, highlight "OK" on the keypad and press **ENTER** to close.

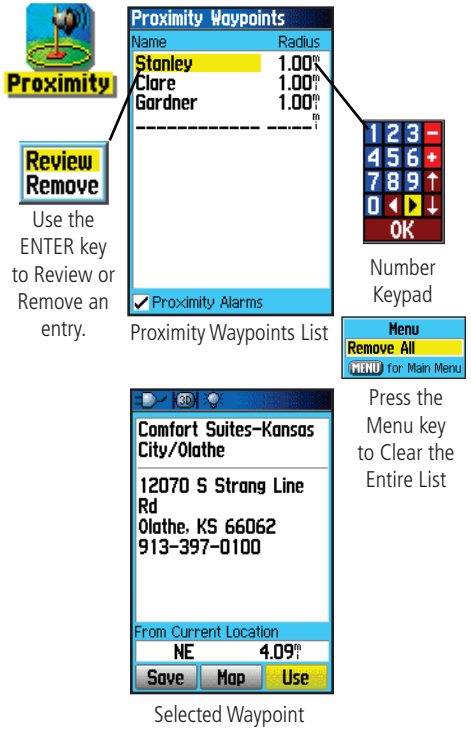
Heading Setup



Welcome Page Setup



Proximity Waypoints



Proximity Waypoints

The Proximity Waypoints Page allows you to establish waypoints that have alarm circles around them at specified distances. The alarm helps you to avoid locations that are restricted or otherwise to be avoided.

To use the Proximity Waypoint feature:

1. Access the Proximity Waypoints Page from the Main Menu by highlighting the Proximity icon and pressing **ENTER**.
2. With the Name field highlighted, press **ENTER** to display the Find Menu. (See page 21 for details on using the Find Feature.)
3. Select a waypoint from the Waypoints List or from any other group of map points and press **ENTER** to display the Information Page for that item.
4. With the "Use" button at the bottom of the page highlighted, press **ENTER** to place the point in the list on the Proximity Waypoints Page.
5. Next use the **ROCKER** key to highlight the Radius field if you want to enter a value different than the default of 1 mile.
6. Highlight the "Proximity Alarms" check box and press **ENTER** to activate the alarm feature. When you trigger an alarm, a tone will sound and a "Near Proximity Point" message displays. When you move outside the set radius, a "Leaving Proximity Point" message displays.
7. To remove or review a single entry, press **ENTER**. To remove all waypoints from the list, press **MENU** and choose "Remove All".

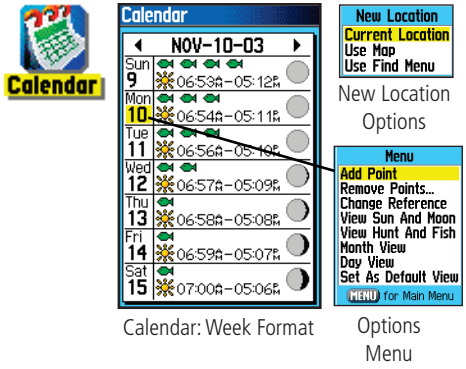
Calendar

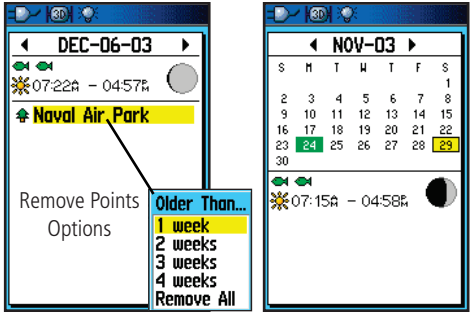
The Calendar allows you to view for any given day and location; Sunrise/Sunset times, moon phase, Hunt and Fish probabilities, archived waypoints for activities you want to navigate to and a day, week or month format display.

To use the Calendar feature:

1. Access the Calendar from the Main Menu. The current week is displayed.
2. Use the **ROCKER** key to highlight the day you want to add waypoints to and press **ENTER** to display the Page for that day.
3. Press the **MENU** key to display the Options Menu. Highlight "Add Point" and press **ENTER** to display the Find Feature Menu.
4. Select the type of point you want to place on the Day Page. (See page 21 for details on using the Find Feature) With the Information Page for that point displayed, highlight the "Use" button and press **ENTER** to place the point reference on the Day Page.
5. To remove points from a Day Page press **MENU** to display the Options Menu. Select "Remove Points" and press **ENTER** to display the Remove Points Options List.
6. To view other calendar formats, Sun and Moon or Hunt and Fish extended data for a specific date and location, press the **MENU** key and use the **ROCKER** key to make your choice.

Calendar

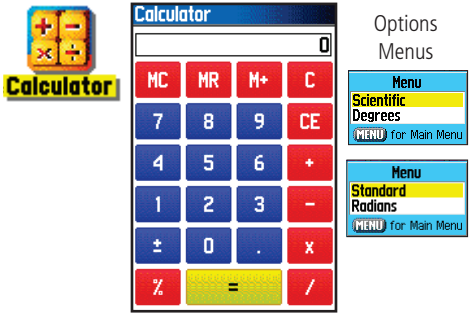




Marked waypoints are automatically added to the Calendar.

Alarm Clock

Calculator



Alarm Clock

The Alarm Clock Feature allows you to use your GPSmap 76C as an alarm clock. You can choose from different alarm tones, and use the "Snooze" feature to delay the alarm for an additional seven minutes.

To set the Alarm Clock:

1. Access the Alarm Clock from the Main Menu.
2. Highlight the Alarm Time field and press **ENTER** to display the Number Keypad and set the desired alarm time.
3. Highlight the Alarm Mode field and press **ENTER** to display the On/Off switch.
4. Highlight the Alarm Beep field and select the type of alarm tone desired.

   When you turn the alarm On, an "Alarm Set" message appears and allows you to turn the unit Off. When the "Set Time" arrives, the unit will switch On and sound the alarm beep. Press any key to silence the alarm.

Calculator

The Calculator Feature allows you to use your GPSmap 76C as a calculator. You can select either a Standard or Scientific calculator and Degrees or Radians from the Options Menu.

To use the Calculator:

1. Access the Calculator from the Main Menu.
2. Use the **ROCKER** and **ENTER** keys to operate the calculator.

Stopwatch

This feature allows you to use the GPSmap 76C as a stopwatch, which includes a lap timer. You may also have the unit record the lap time based on distance.

To start the stopwatch:

1. Use the **ROCKER** key to highlight the 'Start' field and then press **ENTER**.

To stop the stopwatch:

1. Use the **ROCKER** key to highlight the 'Stop' field and press **ENTER**.

To use the lap feature:

1. With the stopwatch running, use the **ROCKER** key to highlight the 'Lap' field and then press **ENTER**.

To reset the stopwatch:

1. With the stopwatch stopped, use the **ROCKER** key to highlight the 'Reset' field and then press **ENTER**.

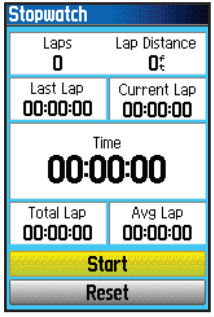
To time lap by distance:

1. Use the **ROCKER** key to highlight the Options Menu and then press **ENTER**. Choose 'Lap by Distance' and press **ENTER**. To return to 'Lap by Button Press', repeat these same steps.

To set a lap distance value:

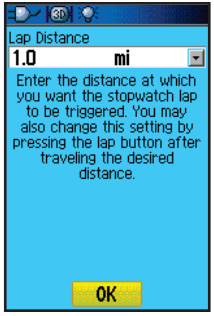
1. Use the **ROCKER** key to highlight the Options Menu and then press **ENTER**. Choose 'Set Lap Distance' and press **ENTER**.
2. Use the **ROCKER** key to highlight the field you wish to change and then press **ENTER**. Enter the new value and press **ENTER**. When done, highlight 'OK' and press **ENTER**.

Stopwatch



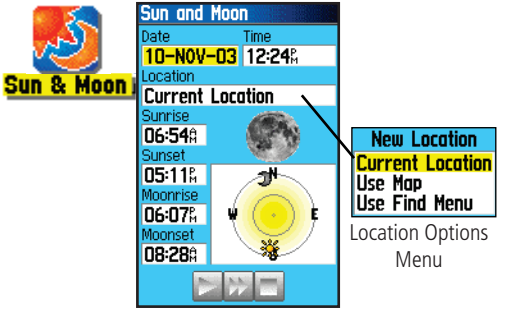
Stopwatch Page

Lap Options Menu


Lap Distance
1.0
mi
Enter the distance at which you want the stopwatch lap to be triggered. You may also change this setting by pressing the lap button after traveling the desired distance.
OK

Setting Lap By Distance

Sun and Moon Tables



Location Options Menu

Sun and Moon

The Sun and Moon Tables provide you with a graphic depiction of the sun and moon relative to the Earth. Sun and moon positions can be displayed for any time, date and location on Earth.

The Sun and Moon Page also displays sunrise, sunset, moonrise and moonset times for the selected time, date and location. On-screen buttons allow you to animate the movement of the sun and moon and stop at a given time/date. The button to the left animates the display of the sun and moon. The center button animates more rapidly, showing the phases of the moon. The right button stops animation.

To display sun and moon locations for a specified time, date and location:

1. Access the Sun and Moon Page from the Main Menu.
2. To view the predictions for a different date and time, highlight those fields and press **ENTER** to display the Number Keypad.
3. To view the predictions for a different location, highlight the Location field and press **ENTER** to display the "New Location" options menu and choose from the options shown.

Hunt and Fish

The Hunt and Fish Tables provide you with a listing of predicted best times for hunting and fishing for a chosen date and location.

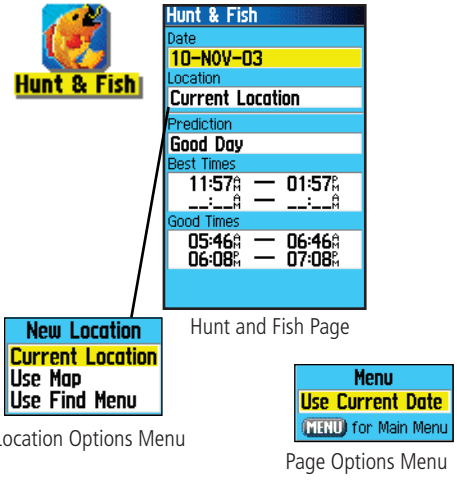
To display hunting and fishing predictions for a specified date and location:

1. Access the Hunt and Fish Page from the Main Menu. The current date and location are displayed in the date and location fields at the top of the page.
2. To view the predictions for a different date, highlight the Date field and press **ENTER** to display the Number Keypad.
3. To view the predictions for a different location, highlight the Location field and press **ENTER** to display the "New Location" options menu.

   Choose "Use Map" to select a point on the map using the Panning Arrow. Then press **ENTER** to display the table for that location. The Location field will now state "Map Location".

   Choose "Use Find Menu" to select a point from the Find Feature database. Follow instructions for using the Find Feature beginning on page 21. When a find item has been selected, highlight the "Use" button at the bottom of the item information page and press **ENTER**. The Location field will now display the name of the find item.
4. To return to the current date, press **MENU** and then **ENTER**.

Hunt and Fish Tables

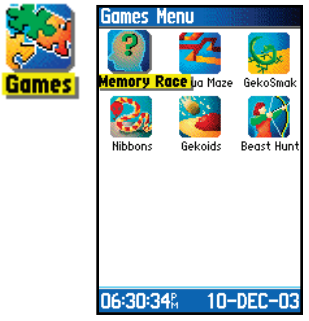


Hunt and Fish Page

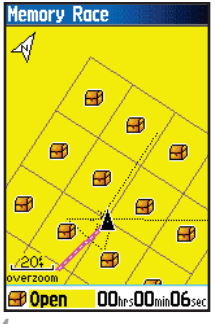
Location Options Menu

Page Options Menu

GPS Enhanced Games



Game Board



Game Prompt

Game Settings

Unopened Symbol

Opened Symbol

Games

The GPSmap 76C provides games as an entertainment feature. Several of these games employ GPS as a virtual component in the play.

To select and play a game:

1. Access the Main Menu and use the **ROCKER** key to select the Games icon.
2. Use the **ROCKER** key to highlight the desired game and press **ENTER** to display the brief description prompt for each game.

Memory Race

This is a GPS virtual game where the playing piece moves where you move. To win the Memory Race, remember which square has which symbol then clear the board by matching all of the two symbol sets together. Travel to each square, highlight "Open" at the bottom of the screen and press **ENTER** to view the symbol. Press the **QUIT** key to stop play.

To adjust the Grid or Square Size in custom mode:

1. Highlight the "Grid Size" or "Square Size" field and press **ENTER** to select from the options lists. Press **ENTER** to make your selection.
2. Highlight "Start" and press **ENTER** to begin the game.
3. Highlight "Re-Center" and press **ENTER** to place yourself back in the middle of the game board.

Virtua Maze

This GPS game creates a virtual maze on the screen. You are placed at a central position in the maze and must explore the maze collecting flags. The lower right corner of the screen tells you how many flags remain. The lower left corner is a timer displaying the elapsed time. The Difficulty Lever determines how much of the maze you can see at one time. Viewing less of the maze makes the game more difficult.

HINT: Pressing the **ENTER** key and selecting "Cheat On" will enable a "cheat mode." Enabling this mode will penalize you by five minutes and count seconds by 10 instead of 2. Turn the cheat mode Off by pressing the **ENTER** key.

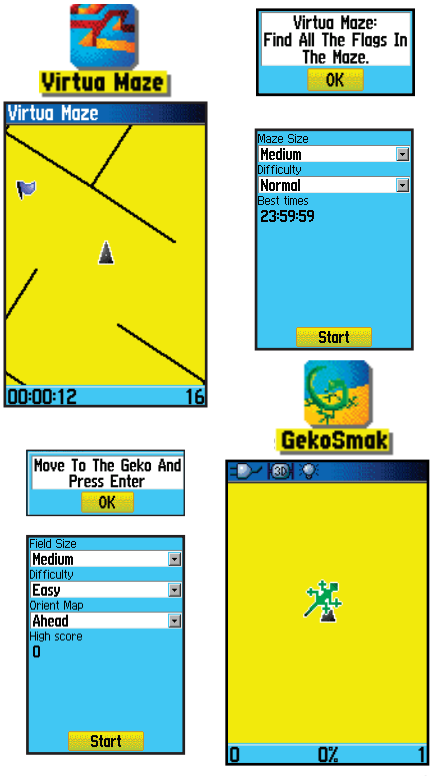
Geko Smak

Geko Smak is a GPS based game that features you as the player piece. In measured rhythm, Gekos will appear on the screen. Before the Geko disappears, move toward the Geko and press the **ENTER** key to smack the Geko with a hammer. If you get the Geko, an "!" mark displays above the hammer, if not, just a hammer displays momentarily.

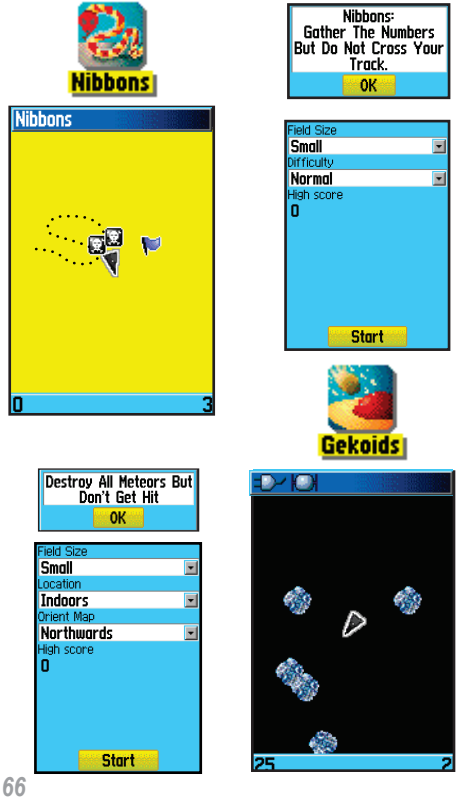
Field size choices are small, medium and large, with small fields being roughly 20 yards by 30 yards and large fields being 60 yards by 90 yards (about the size of an American football field).

The difficulty levels are: Easy, Normal and Hard. These levels determine how often Gekos appear. The pace quickens and values vary as difficulty levels increase.

GPS Enhanced Games



GPS Enhanced Games



Nibbons

In this GPS game, you must walk around the board collecting the flags as they appear. As you walk, your "tail" will grow. You may travel anywhere on the screen but you cannot walk on your tail, or you will lose a life. As an added challenge, you must also avoid the Skulls that chase after you.

Gekoids

This GPS game, which can be played without GPS on, is all about blasting gekoids. The catch is, you are the ship and you can survive only when you avoid getting hit. Before you begin to play, make certain to make your game settings. Orient Map "Northwards" rotates your ship in the center of the map. The map is stationary and north is always up. Orient Map "Ship Up" rotates the virtual world around your ship. Your ship always points Up.

Press the **ENTER** key to start and blast away!

IMPORTANT WARNING: When playing any of the virtual games (where you are moving about on a real playing field), use reasonable and prudent caution in selecting an area free of hazards such a holes, obstructions or proximity to vehicular traffic. Playing these games may distract your attention from observing objects in your path.

Beast Hunt

Although not a true GPS game, Beast Hunt requires some navigation skills, in which you must find and defeat the dragon with an arrow before it breathes fire at you or you fall into one of the pits while navigating a maze of platforms. From time to time you will be transported by slides that curve or move you diagonally. The game consists of several difficulty levels and an extended or limited visibility option. When you lose a game the screen will display the layout of hazards, slide and warning platforms. A scoreboard keeps track of your wins and loses.

To play Beast Hunt:

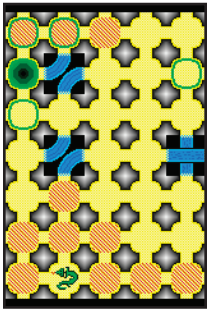
1. Select "Beast Hunt" from the Games Menu and press **ENTER** to display the game prompt window.
2. Read the prompt and then press **ENTER** to display the Difficulty Options window. Make your choice and press **ENTER** to display Visibility Options.
3. Make a selection and press **ENTER** to begin the game.
4. Use the **ROCKER** key to jump from platform to platform.

   When you land on a shaded platform, you are one or two steps from the dragon, a platform with a circle is next to a pit. If you fall into a pit you lose. If you jump into the dragon you will lose, if you shoot an arrow at where you think the dragon is, and miss you will lose.

   To defeat the dragon, use **ENTER** to place an arrow in a shaded platform. Use the **ROCKER** key to point and **ENTER** to shoot.

Non-Enhanced Game

BEAST HUNT:
Find the beast before the beast finds you, and be careful of the pits.
Press MENU during the game for more help or to quit.
OK



Game Symbols

Accessories

USB PC Interface Cable and MapSource Trip and Waypoint Manager CD-ROM
(included with the unit)

GA 27C Remote GPS Antenna with MCX Connector

CAUTION: Garmin Accessories have been designed and tested specifically for use with Garmin products. Accessories offered for sale by other manufacturers have not necessarily been tested or approved by Garmin for use with Garmin Products. Use of such accessories might cause damage to your Garmin Product and void the terms of the warranty. Using Garmin Accessories with other manufacturer's products is not recommended.

See your Garmin Dealer or website for availability.

Accessories *(Included with the Unit)*

Carry Lanyard - Provides convenient method for carrying the unit.

USB PC Interface Cable - Provides connection to a PC for data transfer. Also includes, MapSource Trip and Waypoint Manager CD-ROM with USB Drivers. *(Not shown)*

Owner's Manual - Start up instructions and detailed operation reference.

Quick Start Guide - Abbreviated overview of unit operation and reference.

Optional Accessories *(Not included with the Unit)*

Cigarette Lighter Adapter - Provides auxiliary power from an automobile cigarette lighter. *(Not shown)*

GA 27C Remote GPS Antenna - Allows enhanced satellite acquisition. Includes suction and magnetic mount options.

MapSource CD-ROMs - Allows transfer of detailed map data. *(Not shown)* Refer to Garmin web site: *http://garmin.com/products/gpsmap76c/* for a list of compatible MapSource products.

Serial Port PC Interface Cable with Auxiliary AC Power Supply - Provides connection to a PC for data transfer. *(Not shown)*

Carrying Case - Provides protection during transport of the unit. *(Not shown)*

Auto Navigation Kit - Allows installation on a vehicle dash and includes Garmin MapSource City Select North America v5 CD-ROM. *(CD Not shown)*

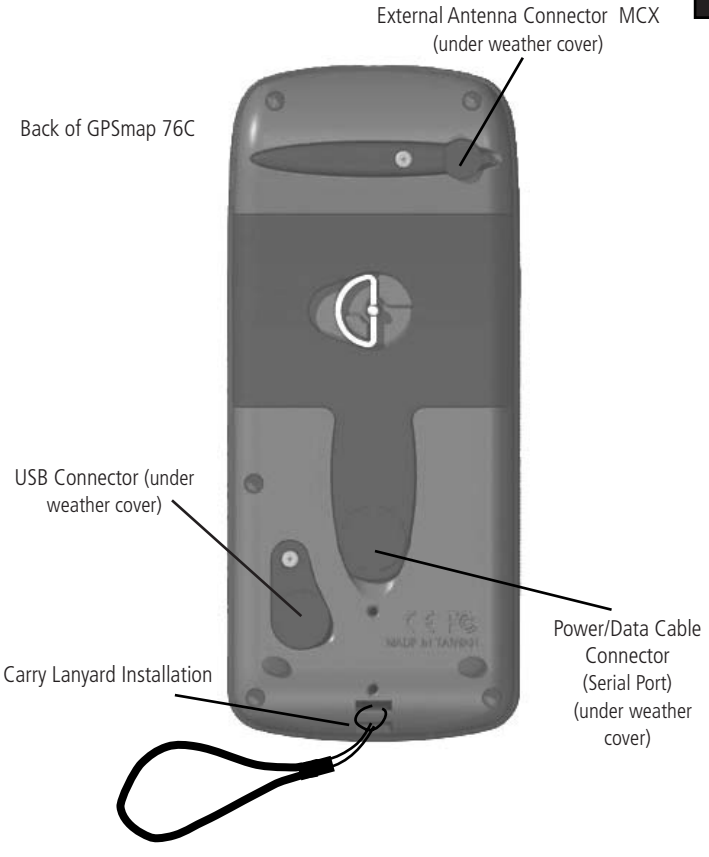
Marine Mount Kit - Allows installation on a boat.

Bicycle Handlebar Mount Kit - Allows installation on bicycle handlebar.

Battery Pack - Rechargeable, NiMH, AA battery kit, USA receptacle.

For a complete list of available accessories for use with GPSmap 76C, refer to the Garmin web site: *http://garmin.com/products/gpsmap76c/*

Installing the Carry Lanyard and Accessory Ports



Accessories

Auto Navigation Kit

Marine Mount Kit

Bicycle Handlebar Mount Kit

Rechargeable NiMH Battery Kit

Specifications

GPSmap 76C

PHYSICAL

Case:	Rugged, fully gasketed, water resistant, IEC-529, IPX7 (Submersible 1 meter @ 30 minutes)
Size:	6.2"H x 2.7"W x 1.4"D
Weight:	7.6 ounces (153 g) with batteries installed
Display:	1.5"W x 2.2"H, 256-color, high resolution, transreflective TFT (160 x 240 pixels) Backlit
Antenna:	Built-in quad helix, with remote antenna capability
Keypad:	Nine multifunction backlit keys
Operating Range:	5 to 158°F (-15 to 70°C)[1]

PERFORMANCE

Receiver:	WAAS enabled, 12 parallel channel
Acquisition Time:	Warm: Approximately 15 seconds Cold: Approximately 45 seconds AutoLocate™: Approximately 2 minutes
Update Rate:	Once per second, continuous
GPS Accuracy	
Position:	< 15 meters (49 feet), 95% typical[2]
Velocity:	0.05 meter/sec steady state

Specifications

DGPS Accuracy

Position:	3-5 meters (10-16 feet), 95% typical[3]
Velocity:	0.05 meter/sec steady state
Dynamics:	Performs to specifications to 6 g's
Interfaces:	NMEA 0183 version 3.01, RTCM SC-104 (for DGPS corrections) and RS-232 and USB for PC interface
Data Storage Life:	Indefinite: no memory battery required
Map Storage:	Internal; approximately 115 MB

POWER

Source:	Two 1.5 volt AA batteries or 12 V Adapter Cable, or up to 36 VDC external power
Battery Life:	Up to 30 hours (typical use)[4]

Specifications subject to change without notice.

1. The temperature rating to the GPSmap 76C may exceed the usable range of some batteries. Some batteries can rupture at high temperatures.

2. Subject to accuracy degradation to 100m 2DRMS under the U.S. DoD imposed Selective Availability (SA) Program.

3. With optional Garmin GBR 21 Beacon Receiver input.

4. Alkaline batteries lose a significant amount of their capacity as the temperature decreases. Use Lithium batteries when operating the GPSmap 76C in below-freezing conditions. Extensive use of screen backlighting and audible tones significantly reduce battery life.

Data Field Options

The following list provides a brief description of each data field option. Some of these options are supported only by devices interfaced to your GPSmap 76C.

Accuracy GPS - The current accuracy of your GPS determined location.

Bearing - The compass direction from your current position to a destination point.

Course - The desired path of travel from your starting point to your destination point.

Depth - The depth of water from sonar NMEA input.

Distance - Next - The distance to the next point on a route.

Distance - Destination - The entire distance, from beginning to end, of a route.

ETA - Next - The estimated time that you will arrive at the next point on your route, if you maintain your current speed and course.

ETA - Destination - The estimated time that you will arrive at your destination, if you maintain your current speed and course.

Elevation - The distance above or below mean sea level.

Glide Ratio - The ratio of horizontal distance traveled to vertical distance.

Data Field Options

Glide Ratio Dest - The glide ratio required to descend from your present position and elevation to the destination's elevation.

Heading - Your direction of travel as indicated by a compass, in degrees or cardinal letters (N,S,E,W).

Location (lat/lon) - Your current location as latitude/longitude coordinates.

Location (selected) - Your current location described in the selected units of measure (other than lat/lon).

Odometer - The total distance you have traveled for all trips.

Off Course - The distance off your direct course line, right or left.

Pointer - The arrow that indicates the direction to travel to the next point on a route.

Speed - Your current vehicle speed can be measured in miles per hour, kilometers per hour or knots.

Speed - Maximum - The maximum speed you have attained since the Trip Computer was reset.

Speed - Moving Avg. - The average speed while your vehicle was moving.

Speed - Overall Avg. - The average speed determined by both the moving and stopped time and speed.

Data Field Options

Sunrise - The time of sunrise for the current date and location.

Sunset - The time of sunset for the current date and location.

Time To Destination - The estimated time enroute to your final destination, if you maintain your current speed and course.

Time To Next - The estimated time enroute to the next point on your route, if you maintain your current speed and course.

Time of Day - The current time and date. It can be displayed in 12 or 24 hour format in local time or universal (UTC) time.

To Course - Your direction of travel to get back on course.

Trip Odometer - The running total of distance traveled since the Trip Computer was reset.

Trip Time - Moving - The length of time your vehicle has been in motion, since the Trip Computer was reset.

Trip Time - Stopped - The length of time that the vehicle has been stopped (stationary) while the unit was powered On and tracking your location (since the Trip Computer was reset).

Trip Time - Total - The total time the unit has been tracking since the Trip Computer was reset.

Turn - The direction of, and distance to, the next turn on an active route.

Data Field Options

Velocity Made Good - The rate of closure on a destination based upon your current speed and course of travel.

Vertical Speed - The rate of altitude gain/loss over time.

Vertical Speed Dest - The measurement of your rate of accent to a predetermined height.

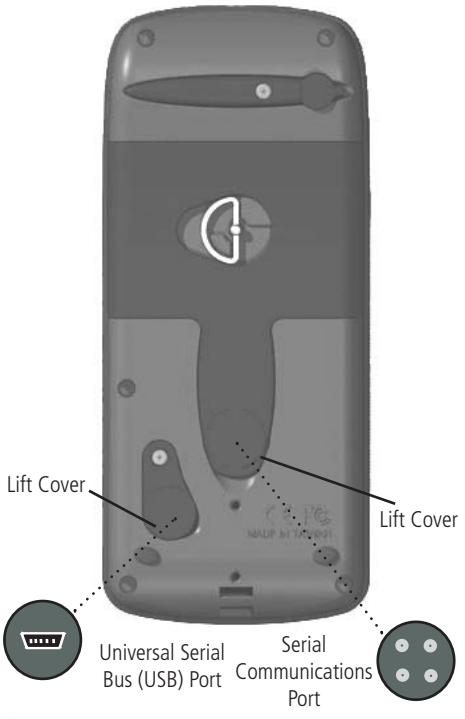
Water Speed - The data acquired from measurement devices interfaced to the GPSmap 76C is used to calculate your current speed over water.

Water Temperature - The temperature of water at a measured depth using measurement devices interfaced to the GPSmap 76C.

Waypoint - Destination - The last point on a route, your destination.

Waypoint - Next - The next point on your route.

Connecting the GPSmap 76C to a Computer



Interfacing the GPSmap 76C

The GPSmap is provided with interface connection to a PC using either a serial port or USB connector cable. Connection to your computer is necessary for downloading of detailed map from Garmin MapSource Map Data CDs. You can also save routes, waypoints, and tracks from the GPSmap 76C to MapSource. Refer to the MapSource User's Guide provided with your MapSource CDs.

To connect to your computer using the USB connector:

1. Lift the USB protective cover from the back of the GPSmap 76C and insert the smaller connector on the USB cable (provided with the unit) into the matching port.
2. Connect the remaining cable end to your PC USB port.
3. Set your GPSmap 76C interface setting to GARMIN format. (See page 48.

To connect to your computer using a Serial Port connector:

1. Lift the Serial Port protective cover from the back of the GPSmap 76C and insert the round indexed connector on the cable into the matching port.
2. Connect the remaining cable end to your PC Serial port or other appropriate device.
3. Set your GPSmap 76C interface setting to the appropriate interface format. Refer to Interface Setup on page 48.

Transferring MapSource Map Data

If you have purchased a Garmin MapSource CD-ROM mapping program you may want to transfer detailed map data before beginning use, to provide your unit with maximum Find features and mapping capability. The GPSmap 76C accepts up to 115 MB of map data from most MapSource products. It is not possible to transfer 3rd party maps into Garmin products.

You cannot view multiple types of MapSource data in the same location at the same time (one will draw over the other). When you leave a MetroGuide area for example and enter the area of a topographic map, the display will change to contour lines. The same is true when moving from a topo map to a MetroGuide map.

Maps that are at the top of the hierarchy and will replace any other map information. Because new maps are constantly being released, consult your Garmin Dealer or the Garmin website to determine the order of hierarchy.

Map data transfer requires the use of a PC, a Garmin MapSource CD-ROM, and the Universal Service Bus (USB) cable supplied with this unit. Follow detailed instructions for data transfer in the MapSource User's Manual.

It is also important to note, that certain features contained in the GPSmap 76C will not be enabled unless you are using mapping data they are designed to support, such as many of the Find Features that require maps like City Select, City Navigator and Blue Chart and DEM Elevation Profiles that require U.S. TOPO 24K maps. Visit the Garmin website for details on all of the maps for use with the GPSmap 76C.

Downloading MapSource Map Data

Garmin MapSource
CD-ROM's offer a variety of detailed mapping data and navigation information.

MapSource is also an excellent medium for storage and safety backup of Personal Waypoints, Routes and Saved Tracks.

Garmin MapSource U.S. Topo 24K Digital Elevation Models (DEM) Maps provide elevation data at any point identified by the Panning Arrow

See your Garmin Dealer or visit the Garmin web site at: www.garmin.com for information on which maps work with the GPSmap 76C.

UTC Offset Chart

This chart is provided to help you determine the time offset settings for your current location if it is not in one of the time zones listed on the Time Setup Page. To change the UTC Offset, access the Main Menu, then Setup and then open the Time Setup Page. Highlight the Time Zone field and press the **ENTER** to display the list of time zones. If the desired zone is not displayed, select 'Other'. Highlight the UTC Offset field and press **ENTER** to enter the appropriate offset value from the chart below. To determine your longitudinal zone, press and hold the **MARK** key and observe the longitude value in the Mark Waypoint Location field. It should fall within the sets of values on the chart. Press the **QUIT** key to avoid marking a waypoint.

Longitudinal Zone	Offset
E007.5° to E022.5°	+01.00
E022.5° to E037.5°	+02.00
E052.5° to E067.5°	+03.00
E067.5° to E082.5°	+04.00
E082.5° to E097.5°	+05.00
E097.5° to E112.5°	+06.00
E112.5° to E122.5°	+07.00
E122.5° to E127.5°	+08.00
E127.5° to E142.5°	+09.00
E142.5° to E157.5°	+10.00
E157.5° to E172.5°	+11.00
E172.5° to E180.5°	+12.00
W180.0° to W172.5°	-12.00
W172.5° to W157.5°	-11.00
W157.5° to W142.5°	-10.00
W142.5° to W127.5°	-09.00
W127.5° to W112.5°	-08.00
W112.5° to W097.5°	-07.00
W097.5° to W082.5°	-06.00
W082.5° to W067.5°	-05.00
W067.5° to W052.5°	-04.00
W052.5° to W037.5°	-03.00
W037.5° to W022.5°	-02.00
W022.5° to W007.5°	-01.00
W007.5° to E007.5°	-00.00

Map Datums and Position Formats

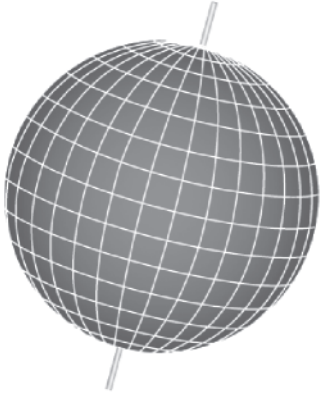
What are Map Datums, and which should I use?

A datum is a mathematical model of the Earth which approximates the shape of the Earth, and enables calculations to be carried out in a consistent and accurate manner. The datum is physically represented by a framework of ground monuments (i.e. trig. stations) whose positions have been accurately measured and calculated on this reference surface. Lines of latitude and longitude on a map or chart are referenced to a specific map datum. Every chart has a map datum reference and the GPSmap 76C can be set to match most of those commonly used.

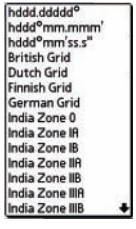
If you are navigating and comparing the GPS coordinates to a map, chart or other reference, the map datum in the GPS unit should be set to the same datum as the map or chart to insure the most accurate navigation.

What is a Position Format, and which should I use?

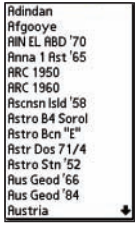
Your current location can be viewed on the GPS in the form of coordinates. Since different maps and charts use different location formats, Garmin GPS units allow you to choose the correct coordinate system for the type of map you are using. The most common format is latitude and longitude, which is utilized by all Garmin units. On most models, you may choose to change the position format to use with other coordinate systems. UTM/UPS (Universal Transverse Mercator/Universal Polar Stereographic) are easy-to-use metric grids that are found on most USGS topographic quadrangle maps. Several other grids, including a user-definable grid (for the advanced user), may also be selected.



Map Datums are based on a mathematical model of the Earth.



Position Formats



Map Datums

WAAS and DGPS

What is WAAS?

The Wide Area Augmentation System (WAAS) is an F.A.A. funded project to improve the overall integrity of the GPS signal. It is a space-based system that broadcasts integrity information and correction data as determined by ground reference stations (see DGPS below). At this time the system is still in the developmental stage with a goal of providing reliable signals with an accuracy of 7 meters (21-22 ft.) both horizontally and vertically 95% of the time. Current tests have shown the actual accuracy to be on the order of 2-3 meters. For more information, go to *http://gps.faa.gov/Programs/WAAS/waas.htm*.

What is Differential GPS (DGPS)?

The U.S. and Canadian governments (among others) have set up Differential GPS (DGPS) stations to transmit correction signals. They are operational in coastal areas and on many navigable river systems. The DGPS system is available for use without fee.

In addition to compensating for errors in the position, these corrections signals can also correct for deliberate degradation of the accuracy of GPS by the U.S. Department of Defense under their Selective Availability (SA) program.

Refer to the U.S. Coast Guard's web site: *http://www.navcen.uscg.gov/* for locations and the status of the differential sites. Using DGPS requires additional equipment.

Interface formats are selected from the Interface Setup on page 48 of this manual. The input/output lines on your GPSmap 76C are RS-232 compatible, allowing easy interface to a wide range of external devices, including PC's, differential beacon receivers, marine autopilots, and /or a second GPS receiver.

The NMEA 0183 version 3.01 interface format is supported by the GPSmap 76C and enables the unit to drive up to three NMEA devices.

NMEA 0183 Version 3.01 Approved Sentences:

GPGGA, GPGLL, GPGSA, GPGSV, GPRMB, GPRMC, GPRTE, GPVTG, GPWPL, GPBOD

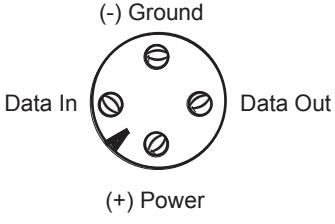
Garmin Proprietary Sentences:

PGRME (estimated error), PGRMM (datum string), PGRMZ (altitude), PSLIB (beacon receiver control)

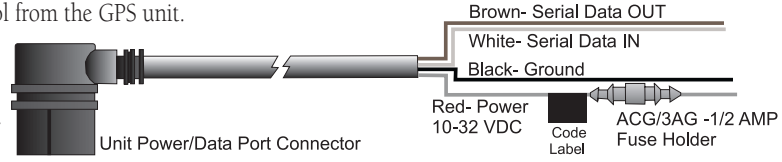
DGPS (Differential GPS) corrections are accepted in RTCM SC-104 version 2.0 format through the 'Data In' line. The Garmin GBR 21 is the recommended beacon receiver for use with the GPSmap 76C. Other beacon receivers with the correct RTCM format may be used, but may not correctly display status or allow tuning control from the GPS unit.

The USB Interface Cable provided with this unit allows you to connect your GPSmap 76C to a PC-compatible computer's USB port.

Interface Wiring Diagram



Cable Plug End View



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Limited Warranty

This Garmin product is warranted to be free from defects in materials or workmanship for one year from the date of purchase. Within this period, Garmin will at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost. This warranty does not cover failures due to abuse, misuse, accident or unauthorized alteration or repairs.

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To obtain warranty service, call your local Garmin authorized dealer. Or call Garmin Customer Service at one of the numbers listed below for shipping instructions and an RMA tracking number. The unit should be securely packed with the tracking number clearly written on the outside of the package. The unit should be sent, freight charges prepaid, to any Garmin warranty service station. A copy of the original sales receipt is required as the proof of purchase for warranty repairs.

Online auction confirmations are not accepted for warranty verification. To obtain warranty service, an original or copy of the sales receipt from the original retailer is required. Garmin will not replace missing components from any package purchased through an online auction.

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